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TRILOBITA

COMPILED BY

C. J. STUBBLEFIELD, D.Sc., F.R.S.

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II. TRILOBITA

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- 2.—Beckmann, H. Zur Ontogenie der Sehfläche grosäugiger Phacopiden. Paläont. Z. 24 3-4 1951 pp. 126-141 pl. x text-figs. 1-16.
- 3.—de Beer, G. R. Embryos and Ancestors. Oxford 1951 159 pp. 18 figs.
- 4.—Begg, J. L. Some new Girvan Trilobites: with a note on the ventral aspect of *Phacops elliptifrons*. Trans. geol. Soc. Glasgow 21 1951 pp. 362– 370 1 pl.
- 5.—Bouček, B. & Svoboda, J. Příspévek k výskytu křemité facie ve vrstvách dobrotivských dγ₂ českého ordoviku. The occurrence of a quartzitic facies in Dobrotivá beds (dγ₂) of Ordovician of Bohemia. Mém. Soc. Sci. Bohème. Cl. Sci. 1945 12 1947 pp. 1–7 1 pl. [English summary.]
- 6.—Brink, A. S. On the compound eye of an unusually large trilobita from the Bokkeveld beds south of Steytlerville, Cape Province. S. Afr. J. Sci. 47 1951 pp. 162-164 2 figs.

- 7.—Delattre, C. La succession stratigraphique du Dévonien dans le bassin de Morlaix (Finistère). C.R. Acad. Sci. Paris 231 1950 pp. 704– 707.
- 8.—Desio, A. Vestigia problematiche paleozoiche della Libia. Ann. Mus. libico Stor. nat. 2 1940 pp. 47-91 pls. iv-xiii 7 figs.
- 9.—(Ellern, S.S., Troepolski, V.I. & Baltchunas, A. E.) [Zhivetz deposits in Tataria.] C.R. Acad. Sci. URSS. N.S. 79 1951 pp. 125-127. [In Russian.]
- 10.—Erben, H. K. Beitrag zur Gliederung der Gattung Proetus Stein., 1831 (Trilobitae). N. Jb. Geol. Paläont. 94 1 1951 pp. 5-48 text-figs. 1-12 pls. ii-iv.
- 11.—Evitt, W. R. Some Middle Ordovician trilobites of the families Cheiruridae, Harpidae and Lichidae. J. Paleont. 25 5 1951 pp. 587-616 pls. lxxxv-lxxxviii 1 text-fig.
- 12.—Evitt, W. R. Paleontologic Techniques. J. Paleont. 25 5 1951 pp. 693–695.
- 13.—Fisher, D. W. Marcasite fauna in the Ludlowville formation of Western New York. J. Paleont. 25 3 1951 pp. 365–371 pl. lv 1 text-fig.

- 14.—Fisher, D. W. & Hanson, G. F. Revisions in the geology of Saratoga Springs, New York and vicinity. Amer. J. Sci. 249 1951 pp. 795-814 pl. i, 3 figs.
- 15.—Fletcher, H. O. Trilobites from the Silurian of New South Wales. Rec. Austral. Mus. 22 1950 pp. 220–233 pls. xv, xvi.

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- 16.—Gaines, R. B., Jr. Statistical survey of Irvingella, Upper Cambrian trilobite. Texas J. Sci. 3 1951 pp. 606-616 1 pl. 5 figs.
- 17.—Gigout, M. Études géologiques sur la Méséta Marocaine occidentale (arrière-pays de Casablanca, Mazagan et Safi). Notes et Mém. Serv. géol. Maroc 86 1951, 2 vols. 505 pp. pls. i-xviii.
- 18.—Gill, E. B. A study of the Palaeozoic genus *Hercynella*, with description of three species from the Yeringian (Lower Devonian) of Victoria. Proc. roy. Soc. Vict. N.S. 59 1950 pp. 80–92 pl. i.
- 19.—Gill, E. D. Concerning the substitution of the term Prosopon for Ornament. J. Paleont. 25 3 1951 pp. 408-9.
- 20.—Gill, E. D. Revision of McCoy's "Prodromus" types from the Lilydale and Killara districts of Victoria. Proc. roy. Soc. Vict. N.S. 63 1951 pp. 31–39 pl. ii.
- 21.—Gregory, W. K. Evolution Emerging. A survey of changing patterns from primeval life to man. 2 vols. New York 1951 735+1013 pp. [Trilobita pp. 56-58, figs. 3.1, 3.2, 3.4.]

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- 22.—Harrington, H. J. & Kay, M. Cambrian and Ordovician faunas of eastern Columbia. J. Paleont. 25 1951 pp. 655-668 pls. xevi, xevii.
- 23.—Henningsmoen, G. Remarks on the Classification of Trilobites. Norsk Geol. Tidsskr., Oslo 29 1951 pp. 174–217, text-figs. 1, 2.
- 24.—Howell, B. F. The Vogdes collection of trilobites. Trans. S. Diego Soc. nat. Hist. 11 11 1951 pp. 257–328 pls. i–xiii,

- 25.—Hromada, K. Kulmské zkameněling z okolí Nemojan a Opatovic na jv. okraji Drahanské plošing. Rozpr, česke Akad. (2) 58 (for 1948) 6 1949 pp. 1–13 pls. i–iv.
- 26.—Hromada, K. Fossil remains of the Kulm in the vicinity of Nemojamy and Opatovice, Moravia. Bull. int. Acad. Prague 49 (for 1948) 1950 pp. 69–79 pls. i–iv. [English summary of preceding entry of Hromada 25.]

Kay, M. see Harrington, H. J.

- 27.—Kobayashi, T. Miscellaneous Notes on the Cambro-Ordovician Geology and Palaeontology, No. xxii. On *Birmanites*, a Lowest Ordovician Genus of Trilobite. J. Geol. Soc. Japan 58 663 1950 pp. 523–528.
- 28.—Kurten, B. On the articulation between the thoracic tergites of some common trilobite forms. Comment. biol. Helsingfors 10 11 1949 pp. 1-15 16 figs.
- 29.—Lamont, A. Further remarks on *Platycalymene* and the segmental relations of trilobite eyes. Geol. Mag. Lond. 88 1951 pp. 295-6.
- 30.—Laverdière, J. W. Reedolithus quebecensis, a new trilobite from the Quebec City formation. Trans. roy. Soc. Can. (3) 45 List of Officers, Memb. Min. Proc. 1951 p. 202.
- 31.—Leanza, A. F. Olenopsis Ameghino, 1889 (un roedor) versus Olenopsis Bonermann [sic], 1891 (un trilobite). Riv. Asoc. Geol. Argentina 4 1 1949 p. 36.
- 32.—Nelson, C. A. Cambrian trilobites from the St. Croix Valley. J. Paleont. 25 6 1951 pp. 765-784 pls. evi-ex.
- 33.—Okulitch, V. J. A Lower Cambrian fossil locality near Addy, Washington. J. Paleont. 25 3 1951 pp. 406-7 pl. lxii.
- 34.—Palmer, A. R. Pemphigaspis, a unique Upper Cambrian Trilobite. J. Paleont. 25 6 1951 pp. 762–764 pl. ev.
- 35.—Pillet, J. Contribution à l'étude des schistes, calcschistes et grauwackes d'Angers. Bull. Soc. géol. France [5] 20 7-9 for 1950, 1951 pp. 439-450, pl. xxiii, text-figs. 1-3.

- 36.—Pokorný, M. Vysvětlivky ke geologické mapě jizni části Devonu a Kulmu v prostoru Líšeň-Mokrá. Čas. morav. Musea zem. 35 1950 pp. 5–14 1 map. [French résumé.]
- 37.—Poulsen, C. Acerocarina, new name for Cyclognathus Linnarsson non St. Hilaire. Abstr. Proc. Geol. Soc. London no. 1476 1951 p. 97.
- 38.—Poulsen, C. The Position of the East Greenland Cambro-Ordovician in the Palaeogeography of the North Atlantic Region. Medd. Dansk Geol. Foren., København 12 1951, pp. 161–2.
- 39.—Prantl, F. Perneraspis nom. nov., nové pojmenováni pro Perneria Růžička (Trilobita). Perneraspis nom. nov., a new name for Perneria Růzička (Trilobita). Mém. Soc. Sci. Bohême Cl. Sci. 1946 10 1947 pp. 1-3 [English summary, p. 3.]
- 40.—Prantl, F. O nových nebo málo znamých českych trilobitech rodu Scutellum Pusch, 1833. Rozpr. české Akad., Praha 59 (for 1949) 14 1950 pp. 1–26 pls. i–iii.
- 41.—Prantl, F. Some New or Imperfectly-known Bohemian Representatives of the Genus Scutellum Pusch., [sic] 1833 (Trilobitae). Bull. int. Acad. tchèque Sci. 50 (for 1949) 1951 pp. 219–244 pls. i–iii. [English summary of preceding entry of Prantl 40.]
- 42.—Prantl, F. & Přibyl, A. Revise čeledi Otarionidae R. & E. Richter z českého siluru a devonu (Trilobitae). A Revision of the Bohemian representatives of the family Otarionidae R. & E. Richter (Trilobitae). Sborn. geol. Úst. Česk., Praha, Paleont. 17 (for 1950) 1951 pp. 353-429 pls. xxvii-xxxi. [English summary pp. 433-512.]
- 43.—Přibyl, A. O moravskoslezských karbonských trilobitech. Rozpr. české Akad., Praha 60 (for 1950) 24 1951 pp. 1–22 pls. ii.
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- 44.—Rasetti, F. Middle Cambrian stratigraphy and faunas of the Canadian Rocky Mountains. Smithson. Misc. Coll. 116 5 1951 pp. i-v, 1-277, pls. xxxiv.

- 45.—R. Richter. Warnende Erfahrung an Eifel-Sammlungen und der Stand des Welteldorfer Richtschnittes. Senekenbergiane, Frankfurt a. M. 31 1–2 1950 pp. 95–108.
- 46.—Richter, R. Mikrokopie (Mikrofilm) bewirkt für die Paläontologie keine Veröffentlichung. Paläont. Zeits. 24 3-4 1951 101-3.
- 47.—Richter, R. & Emma. Trilobiten von Ashgill-Alter aus dem Massif du Brabant (Grand-Manil). Bull. Inst. roy. Sci. nat. Belg. 27 16 1951.
- 48.—Richter, R. & Emma. Der Beginn des Karbons im Wechsel der Trilobiten. Senckenbergiana, Frankfurt a. M. 32 1-4 1951 pp. 219-266 pls. i-v text-figs. 1-10.
- 49.—Ringuelet, R. A. Clasificación moderna del reino animal incluyendo clases y subclases de acordados vivientes y extinguidos. Fac. Cienc. nat. Mus. La Plata Ser. tecn. y didácticá No. 3 1950 pp. 1–61.
- 50.—Ross, R. J., Jr. Stratigraphy of the Garden City Formation in north-eastern Utah, and its trilobite faunas. Bull. Peabody Mus. nat. Hist., Yale, New Haven No. 6 1951 pp.i-vi, l-161 pls. i-xxxvi, 4 text-figs.
- 51.—Ross, R. J., Jr. Ontogenies of three Garden City (early Ordovician) trilobites. J. Paleont. 25 5 1951 pp. 578–586 pls. lxxxi-lxxxiv.
- 52.—Rusconi, C. Diferentes organismos del Ordovicio y del cámbrico de Mendoza. Rev. Mus. Hist. nat. Mendoza 4 3-4 1950 pp. 63-70 5 figs.
- 53.—Rusconi, C. Trilobitas y otros organismos del cámbrico de Canota. Rev. Mus. Hist. nat. Mendoza 4 3-4 1950 pp. 71-84 14 figs.
- 54.—Rusconi, C. Nuevos trilobitas y otros organismos del cámbrico de Canota. Rev. Mus. Hist. nat. Mendoza 4 3-4 1950 pp. 85-94 11 figs.
- 55.—Rusconi, C. Nota sobre faunas Paleozoicas de Mendoza. An. Soc. Cient. Argent., Buenos Aires 149 4 1950 pp. 157–177.
- 56.—Rusconi, C. Más trilobitas cámbricos de San Isidro, Cerro Pelado y Canota. Rev. Mus. Hist. nat. Mendoza 5 1-4 1951 pp. 3-30 29 figs.

- 57.—Rusconi, C. Trilobitas cambricos del Cerro Pelado (Mendoza). Bol. Paleont. Buenos Aires 24 1951 pp. [1-4] text-figs. 1-6.
- 58.—Rusconi, C. Fósiles cámbricos de Salagasta, Mendoza. An. Soc. Buenos Aires cient. Argent. 152 6 1951 pp. 255-264.
- 59.—Růžička, R. O rodech Drevermannia a Phacopidella z českého devonu. [The genus Drevermannia and Phacopidella in the Devonian of Bohêmia.] Mém. Soc. Sci. Bohême. Cl. Sci. 1945 8 1947 pp. 1-4 2 figs. [English summary p. 4.]
- 60.—Schindewolf, O. H. Der Zeitfaktor im Geologie und Paläontologie. Stuttgart 1950 pp. 1–114 18 text-figs. 3 tables.
- 61.—Shaw, A. B. The Paleontology of North-western Vermont. I. New late Cambrian Trilobites. J. Paleont. 25 1 1951 pp. 97-114 pls. xxi-xxiv.
- 62.—Simon, W. Petrostratigraphisches zur Frage der Saukiana-Stufe (Kambrium, Spanien). Senekenbergiana, Frankfurt a. M. 31 1-2 1950 pp. 109-111.
- 63.—Šnajdr, M. Aculeodiscus nov. gen. ze středočeského středníko kambria (Trilobitae). Aculeodiscus nov. gen. from the Middle Cambrian of Central Bohemia Trilobitae. Sborn. geol. Úst. Česk., Praha, Paléont. 17 (for 1950) 1951 pp. 201–206 pls. xv-xvii 1 text-fig. [English summary, pp. 207–212.]
- 64.—Størmer, L. Trilobiter-dolk-haler, en stamtavle fra Kambrium til nåtiden. Naturen 15 1951 pp. 449-461.
- 65.—Størmer, L. Studies on Trilobite Morphology Part III. The ventral cephalic structures with remarks on the zoological position of the trilobites. Norsk geol. Tidsskr. 29 1951 pp. 108–158 14 text-figs. pls. i-iv.
- 66.—Strand, E. Miscellanea nomenclatorica zoologica et palaeontologica. Folia zool, hydrobiol., Riga 12 1943 pp. 94–114.

- 67.—Stubblefield, C. J. New names for the trilobite genera *Menevia* Lake and *Psilocephalus* Salter. Geol. Mag., Lond. 88 1951 pp. 213-4.
- 68.—Stubblefield, C. J. Further renaming of the Tremadoc Trilobite Genus *Psilocephalus* Salter. Geol. Mag., Lond. 88 1951 p. 440.
- 69.—Stumm, E. C. Check list of fossil invertebrates described from the Middle Devonian Traverse Group of Michigan. Contr. Mus. Paleont. Univ. Michigan 9 1 1951 pp. 1–44.

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- 70.—Tasch, P. Fauna and Paleoe-cology of the Upper Cambrian Warrior formation of Central Pennsylvania. J. Paleont. 25 3 1951 pp. 275—306 pls. xliv-xlvii.
- 71.—Tasch, P. A new Illaenid Trilobite from the Middle Ordovician of Central Pennsylvania. Canad. Field Nat., 65 5 1951 pp. 163–166, pl. i.
- 72.—Theokritoff, G. Ordovician rocks near Leenane, Ireland. Proc. R. Irish Acad. 54B 3 1951 pp. 25-49 1 map, 1 fig.
- 73.—Troedsson, G. T. Hedinaspis, a new name for Hedinia Troedsson, non Navás, Geol. Fören. Förhandl., Stockholm 73 4 1951 p. 695.
 - Troepolski, V. T. see Ellern, S. S.
- 74.—Weller, J. M. in Sinclair, G. W. 1. Bilobites, the Trilobite. Nomenclatural Notes. J. Paleont. 25 2 1951 p. 228.
- 75.—Westoll, T. S. Some aspects of growth studies in fossils. Proc. roy. Soc. London 137B 889 1950 pp. 490-509 5 figs.
- 76.—Wilson, J. L. Franconian trilobites of the central Appalachians. J. Paleont. 25 5 1951 pp. 617-654 pls. lxxxix-xcv 1 text-fig.
- 77.—Wilson, J. L. & Frederickson, E. A. The Irvingella major ("Ptychopleurites") faunizone of the Upper Cambrian. Amer. J. Sci. 248 1950 pp. 891–902, pl. i, 1 table.
- 78.—Zeuner, F. E. Dating the Past. An Introduction to Geochronology. London 1946 pp. 1-444 24 pls.

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marginal cephalic spines; metaprotaspid stages and cephala and pygidia of meraspid and holaspid stages described. Development of Menoparia and/or Scinocephalus also described as showing enrolled protaspid. and opisthoparian sutures. Pygidial development of Macropyge described and illustrated and shown that full number of thoracic and pygidial segments gathered into "pygidium" before any loosed into thorax, Ross Two species of large-eved Phacopids studied statistically as far as growth of visual surfaces concerned; Clarke's studies revised and amplified, BECKMANN 2.

EVOLUTION AND CLASSIFICATION

General works (theories).—DE BEER 3, GREGORY 21, SCHINDEWOLF 60, ZEUNER 78.

Evolutionary trends in Ptychoparioidae discussed, RASETTI 44; The series of Lower Ordovician proparians in ascending stratigraphical order illustrated for Tesselacauda $depressa \rightarrow Protopliomerops$ supercil $iosa \rightarrow P$. $celsaora \rightarrow P$. $contracta \rightarrow$ Pseudocubele nasuta and claimed to show trends affecting the anterior pits, the palpebro-ocular ridges or lobes, epistomal [rostral] plate, hypostoma, thorax and pygidium; Cybele thought to be a later stage of this phylogeny, Ross 50; evolutionary trend discussed from hypostoma study in certain proparian Ordovician genera, Ross 50; In cephalopod facies living Lower Carboniferous Proetidae (a) "Doubling" (Verof glabellar furrows, doppelung) (b) Forward movement of palpebral structures accompanied by lengthening of posterior branches of facial sutures, (c) loss of eye lenses, R. & E. RICHTER 48.

Caenogenesis probably operative in the protaspis which represents no adult ancestor, DE BEER 3.

Neoteny or Paedogenensis probably operative in evolution of proparia from opisthoparia, de Beer 3.

Acceleration or Recapitulation.— Leptoplastus following Raw, claimed to recapitulate conditions seen in Ctenopyge, Parabolina and other presumed adult ancestors, DE BEER 3. Phylogeronticism.—Doubt thrown on this as a postulate only to be available for the last members of a group, R. & E. RICHTER 48.

8

Extinction of Trilobite Families.—
"Erste grosse Trilobiten-Sterben" at close of Manticoceras Stage I (Upper Devonian) when Odontopleuridae, Lichidae, Harpidae and Scutellidae became extinct; Homalonotidae became extinct before beginning of Upper Devonian as did Calymenidae and Cheiruridae; "Zweite grosse Trilobiten-Sterben" at close of Upper Devonian when the Phacopidae disappear, R. & E. RICHTER 48.

Duration of group.—310 million years (minimum) Zeuner 78.

Variation slight variability of lens count between right and left eye considered from statistical data to be normal feature of the species Phacops schlotheimi, BECKMANN 2; Variable number of thoracic segments in a single species of Elrathina and deduced that this may occur only among multisegmented micropygous trilobites, RASETTI 44; Terminal pygidial spine may be present at maturity, only at immature stages or not at all within the limits of the genus Bellefontia, Ross 50.

Segmentation.—Glabellar furrows accepted as borders of primary somites and then concluded that "Advanced types of glabellar furrows indicate specialization of the primary somites in the cephalon," supposed evolution of Trilobite superfamilies suggested, Henningsmoen 23; Eyes ascribed to different segments in certain genera belonging to different trilobite families, Lamont 29.

Biometry.—Statistical methods applied to establish that a single species of Amblycranium was being considered, Ross 50; used in statistical work on Irvingella cephala, Gaines 16.

Classification.—The value of the following features considered to have been overestimated in the past: facial sutures, long eyes, long pleural spines, small size and number of

segments in pygidium; but glabellar furrows accepted as borders of somites and primary therefore accorded high value. Classification on superfamily basis favoured; hypoparia held to have no phylogenetic significance and Cambrian proparia to have no close relationship to post-Cambrian proparia, HENNINGSMOEN 23; The terms proparian, opisthoparian and hypoparian used without ordinal implication and a new term amphiparian also used where posterior branches of facial suture cut margin "directly at genal angles or, in some species, vary slightly in position so as to produce some proparian and some opisthoparian individuals", Shaw 61; Corynexochoidae superfamily 88 for Corynexochidae, Dolichometo-pidae, Dorypygidae, Ogygopsididae fam. n., Oryctocephalidae and Zacanthoididae. Ptychoparioidae used as superfamily name in preference to Conocoryphoidae despite nonpriority in order to preserve stability in nomenclature Ogygopsididae fam. n. erected, RASETTI 44; Proetidae, definition of new genera Liobolina and Diacoryphe, R. & E. RICHTER 48.

ECOLOGY AND HABITS

Ecology.—Offshore Trilobite fauna in Lower Devonian of Victoria, GILL 18.

Migration.—First Agnostids appear in Canadian portion of Cordilleran geosyncline well on in Middle Cambrian times, concluded that this one of the last seaways of the world to be invaded by Agnostida, RASETTI 44.

Habits.—In Pseudocybele a ventrally directed postero-median spino on hypostoma, Ross 50.

DISTRIBUTION AND FAUNAS

Cambrian. — Canada, Sweden, Howell 24; Czechoslovakia, Prantl 39; Sardinia, Leanza 31; Spain, Bataller 1; Simon 62.

Cambrian (Lower). — Greenland, Poulsen 38; U.S.A. (Washington), Okulitch 33.

Cambrian (Middle). — Africa (Morocco), GIGOUT 17; Argentina, RUSCONI 52; RUSCONI 55, 56; Britain (Wales), STUBBLEFIELD 67; Canada (British Columbia and Alberta), U.S.A. (Idaho), RASETTI 44; Colombia (eastern), HARRINGTON & KAY 22; Czechoslovakia, Sweden, U.S.A., ŠNAJDR 63.

Cambrian (Upper). — Argentina, RUSCONI 53; RUSCONI 54, 55, 56, 58; Sweden, POULSEN 37; TURKESTAN, TROEDSSON 73; U.S.A., J. L. WILSON & FREDERICKSON 77; U.S.A. (Minnesota, Texas, Wisconsin), PALMER 34; U.S.A. (Minnesota and Wisconsin), NELSON 32; U.S.A. (Pennsylvania), TASCH 70; U.S.A. (Pennsylvania, Maryland, West Virginia, Virginia), J. L. WILSON 76; U.S.A. (New York), FISHER & HANSON 14; U.S.A. (Texas), GAINES 16; U.S.A. (Vermont), SHAW 61.

Tremadoc. — Britain (Wales), STUBBLEFIELD 67, 68; Colombia (eastern), HARRINGTON & KAY 22; U.S.A. (Utah and Idaho), Ross 50; U.S.A. (Vermont), SHAW 61.

Ordovician. — Britain (Scotland), BEGG 4; Canada (Quebee), LAVER-DIÈRE 30; Canada, Czechoslovakia, Sweden, U.S.A., HOWELL 24; Ireland, THEOKRITOFF 72; Spain, BATA-LLER 1.

Ordovician (Lower). — Belgium, R. & E. RICHTER 47; Burma, KOBAYASHI 27; Colombia (eastern), HARRINGTON & KAY 22; CZechoslovakia, BOUČEK & SVOBODA 5; U.S.A. (Utah and Idaho), Ross 50; U.S.A. (Utah), Ross 51.

Ordovician (Lower and Middle).—Morocco, Gigout 17.

Ordovician (Middle). — U.S.A. (Virginia), EVITT 11; U.S.A. (Pennsylvania), TASCH 71.

Ordovician (Upper). — Belgium, R. & E. RICHTER 47.

Silurian.—Africa (Libya), Desio 8; Africa (Morocco), Graout 17; Australia, U.S.A., Britain, Czechoslovakia, Howell 24; Czechoslovakia, Erben 10; Prantl 40, 41; Prantl & Přibyl 42; Spain, Bataller 1. Silurian (Lower). — Australia (N.S.W.), FLETCHER 15; Britain (Scotland), Begg 4.

Devonian.—Africa, South Africa, BRINK 6; Australia, Germany, U.S.A., Czechoslovakia, Howell 24; Czechoslovakia (Moravia), Pokorný 36; PRANTL & PŘIBYL 42; Germany, RICHTER 45; Spain, BATALLER 1; U.S.A. (New York), FISHER 13; U.S.S.R., ELLERN, TROEPOLSKI & BALTCHUNAS 9.

Devonian (Lower). — Australia (Victoria), GILL 18, 20; Czechoslovakia, Novák in Prantt 40, 41; Czechoslovakia, Germany, S. Africa, Erben 10; France, PILLET 35; France (Finistère), DELATTRE 7.

Devonian (Lower and Middle).—Africa (Morocco), GIGOUT 17; Czechoslovakia, PRANTE 40, 41.

Devonian (Middle). — Germany, BECKMANN 2; U.S.A. (Michigan), STUMM 69.

Devonian (Upper). — Czechoslovakia, Růzička 59.

Carboniferous. — Spain, BATALLER 1.

Carboniferous (Lower). — Africa (Morocco), GIGOUT 17; Czechoslovakia, HROMADA 25, 26; Czechoslovakia, Germany, Nova Zemblya, U.S.S.R., Přibyl 43; Germany, Britain, Poland, R. & E. RICHTER 48; U.S.A., HOWELL 24.

Carboniferous (Upper). — Czechoslovakia, Přibyl 43; U.S.A., Howell 24.

III.—SYSTEMATIC INDEX

N.B.—The numbers in large Clarendon type refer to the list of Titles where the full reference will be found; those in small Clarendon type to the volume number of the reference. Since all the species of the group are fossil, the † used elsewhere in the Zoological Record to indicate fossils is here omitted.

Acanthopyge Corda 1847 nomenclature of genus discussed p. 35, A. australis (McCoy) lectoholotype and lectoparatype refigured p. 35 pl. ii figs. 3-6, GILL 20.

Acaste downingiae Murchison in Morocco p. 300 pl. iv figs. 1, 2, A. spinosa Salter p. 300 pl. iv fig. 3, GIGOUT 17.

Acerocarina gen. n. [nom. n. for Cyclognathus Linnarsson 1875 non St. Hilaire 1833] with type C. micropygus Linnarsson 1875 Cambrian, Sweden p. 97, POULSEN Abs. Proc. Geol. Soc. London 1476 1951.

Achatella carleyi (Meek) p. 287 pl. viii fig. 5, Howell 24.

Acidaspis crenata (Emmrich) p. 296, HOWELL 24.

Acidaspis (Ceratocephala) laportei Corda in Morocco p. 331 pl. vii fig. 11, GIGOUT 17

Aculeodiscus gen. n. for type A. bohemicus sp. n. Cambrian (Middle) Czechoslovakia p. 210 pl. i fig. 1, pl. ii figs. 1-6, pl. iii figs. 1-2, textfig. 1 (p. 204), A. b. dawsoni revised reference for Dawsonia d. (Hartt) p. 210 A. oelandicus for Calodiscus o. Westergård p. 210, ŠNAJDR Sborn. geol. Úst. Česk., Praha Paléont. 17 for 1950, 1951.

Agnostacea Salter viewed as comprising Agnostidae and Eodiscidae p. 179, held to be of equal taxonomic grade with Olenellacea, and other trilobite superfamilies p. 181, Henningsmoen 23.

Agnostidae not excluded from Trilobita but considered probably to have evolved from Eodiscidae p. 181, HENNINGSMOEN 23.

Agnostus tardus Barrande in Morocco p. 284, GIGOUT 17

Albertella referred to Zacanthoididae p. 147, A. declivis p. 150 pl. xvii figs. 10-15, A. microps p. 153 pl. xix figs. 1-8, A. limbata p. 154 pl. xviii figs. 8-17, A. stenorhachis p. 155 pl. xviii figs. 18-21 spp. n. A. bosworthi Walcott in synonymy of which is included A. similaris Resser 1936, lectotype refigured p. 149 pl. xvii figs. 1-9, A. nitida Resser prototype refigured p. 151 pl. xviii figs. 1-7 Cambrian (Middle) Canada, RASETTI Smithson. Misc. Coll. 116 5 1951.

Alokistocare Lorenz genus discussed p. 202, A. paranotatum p. 203 pl. xxxiii figs. 17, 18, A. sinuatum p. 204 pl. xxxiiv figs. 1, 2, A. cataractense p. 205 pl. xxxiiv figs. 3, 4 spp. n. Cambrian (Middle) Canada (Brit. Columbia), A. agnesensis (Walcott) referred to Amecephalus p. 207, A. cleora (Walcott) to Amecephalus p. 208, RASETTI Smithson. M'sc. Coll. 116 5 1951.

Alokistocarella Resser, A. fieldensis sp. n. Cambrian (Middle) Canada (Brit. Columbia) p. 206 pl. xxx figs. 3-5, RASETTI Smithson. Misc. Coll. 116 5 1951.

Amblycranium gen. n. [fam. and affin. not indicated] for type A. variabile sp. n. p. 64 pl. xiii figs. 10-18; A. cornutum p. 67 pl. xiii figs. 1-9; A. ? populus p. 67 pl. xiii figs. 19-22 spp. n., A. ? sp. pl. xiv figs. 10, 11, 14-16, Ordovician (Lower) U.S.A. (Idaho), Ross Bull. Peabody Mus. Nat. Hist. 6 1951.

Amecephalus Walcott 1924 genus discussed p.203, Strotocephalus Resser assigned to synonymy p. 97, A. agnesensis revised assignation for Olenopsis? a. Walcott p. 207, holotype refigured, pl. x figs. 11–15, A. cleora for O? c. Walcott 1917, to which in synonymy are referred with reserve, O. crito Walcott 1917 and **Inglefieldia birdsalli Howell 1936 p. 208, pl. xv figs. 12–20, RASETTI Smithson. Misc. Coll. 116 5 1951.

Amechilus gen. n. [near Pseudoclelandia] for type A. palaora sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 112 pl. xxviii fig. 15, Ross Bull. Peabody Mus. Nat. Hist. 6 1951.

Amphilichas (Probolichas) discussed p. 613 A. (P.) pandus sp. n. Ordovician (Middle) U.S.A. (Virginia) p. 614 pl. lxxxviii figs. 9a-d, Evitt J. Paleont. 25 5 1951.

Amphion? matutina Hall, the type species of Hallaspis Raasch & Lochman 1943 declared to be an absolute synonym of Pemphigaspis Hall 1863 based on P. bullata Hall p. 762, PALMER 34.

Amphoton? costatus sp. n. Cambrian (Upper) Argentina p. 84 [unillustr.], RUSCONI Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Anadoxides Matthew 1899 excluded from Paradoxididae p. 187, HENNINGSMOEN 23.

Anchiopsis anchiops (Green) p. 286, cast of holotype figured pl. viii fig. 3, Howell 24.

Anderssonia Sun 1925 non Kluge 1914 renamed Sunina gen. n. p. 101, E. STRAND Folia zool. hydrobiol., Riga 12 1943.

Andrarina Raymond 1924 excluded from Richardsonellidae p. 198, Henningsmoen 23.

Anemocare error pro Anomocare p. 197, Henningsmoen 23.

Anemocaridae error pro Anomocaridae p. 197, Henningsmoen 23.

Anemocaroides error pro Anomocaroides p. 197, Henningsmoen 23.

Ankoura apicalis Duncan p. 286 pl. xliv figs. 1, 2, A. ef. orbiculata Lochman p. 286 pl. xliv fig. 22, A. sublettensis (Miller) p. 286 pl. xliv figs. 3, 4, Tasch 70.

Antagmus skapta (Walcott) assigned to Carborcella p. 210, A. perola (Walcott) to Syspacephalus p. 244, RASETTI 44.

Apatokephalus Brögger see Menoparia and Scinocephalus

Aphelaspis depressa (Shumard) p. 774 pl. evi fig. 14, Nelson 32.

Arionellus bipunctatus Shumard type species of Croixana gen. n. p. 775, Nelson J. Paleont. 25 6 1951.

Asaphacea Salter 1864 considered to be derived from Conocoryphacea and to comprise Asaphidae, Nileidae, Ceratopygidae and tentatively the Cyclopygidae, HENNINGSMOEN 23.

Asaphidae see Ogygopsididae.

Asaphelina? sp. p. 109 pl. xxxvi figs. 1-4, Ordovician (Lower), U.S.A. (Utah), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Asaphellus? eudocia revised assignation for Xenostegium e. Walcott 1925 p. 107 pl. xxvii figs. 17-23, 27, A.? sp. A. p. 107 pl. xxvii figs. 12-16, A.? sp. B. p. 108 pl. xxvii figs. 1-3, 6-8, 10, Ordovician (Lower) U.S.A. (Idaho), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Asaphidae considered possibly to have shared common origin with Ceratopygidae or to have arisen from early Ceratopygidae p. 196, Henningsmoen 23.

Asaphidae see Lachnostoma gen. n. Kirkella, Trigonocerca gen. n.

Asaphiscus? florus Walcott 1916 referred to synonymy of Dellea suada (Walcott) p. 637, Wilson 76.

Asaphus (Plesiomegalaspis?) imfouti sp. n. Ordovician Morocco p. 294 pl. iii figs. 13-20, A. (Megalaspides) alienus Barrande p. 292 pl. iii fig. 11, A. nobilis Barr. p. 292 pl. iv fig. 16, A. (Basilicus) peltastes Salter p. 293 pl. iii fig. 12, A. cf. peltastes p. 293 GIGOUT Notes et Mém. Serv. géol. Maroc 86 1951,

Asaphus cianus Verneuil & Barrande p. 225, BATALLER 1.

Asaphus expansus (Linné) p. 292, Howell 24.

Asaphus expansus p. 4 text-figs. 2-8, A. tyrannus text-fig. 1, Kurten 28.

Asaphus? salagastensis sp. n. Cambrian (Upper) Argentina p. 264 [unillustr.], RUSCONI An. Soc. cient. Argent. 152 6 1951.

Asteropyge (Metacanthus) andegavensis sp. n. p. 446 pl. xxiii figs. 6a-d, text-fig. 3 Devonian (Lower) France, A. (M.) caillaudi (Péneau) p. 448, A. (M.) prostellans p. 448, A. (M.) stellifer p. 448, A. (A.) laciniatus p. 448, PILLET Bull. Soc. géol. France [5] 20 7-9 for 1950, 1951.

Asteropyge aff. jonesi Oehlert in Morocco p. 313 pl. iv fig. 19, GIGOUT 17.

Athabaskia Raymond 1928 referred to Dolichometopidae p. 156, A. ? parva sp. n. p. 156 pl. xxxi figs. 11, 12, A. sp. undet. p. 156 pl. xxii figs. 11, 12 Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Aulacopleura Hawle & Corda 1847 genus discussed p. 488, A. (A.) konincki konincki Barrande 1846 p. 491 lectotype selected pl. i fig. 20 figs. 20-24, pl. iii fig. 7, A. (A.) kaueri (Frech 1887) p. 493 pl. ii figs. 1-3, pl. v fig. 7, A. (A.) bohemica

Přibyl 1947 p. 494 pl. ii figs. 5-9, pl. v. fig. 1, A. (A.) nitida (Barrande 1846) p. 496 pl. i figs. 25, 26, A. (Paraaulacopleura) Chaubet 1937 subgenus discussed p. 497, A. (P.) sandbergeri (Barrande 1868) p. 500 pl.ii fig. 14, pl. v fig. 4, A. (P.) inexpectata (Barrande 1882) p. 498 pl. ii fig. 4, pl. v fig. 13, PRANTL & PŘIBYL 42.

Aulacopleura konincki (Barrande) p. 291, Howell 24.

Aulacopleurina Přibyl 1949 genus discussed p. 501, A. peltata (Novák 1890) p. 502 lectotype selected pl. ii fig. 16, pl. v fig. 6, Prantl & Přibyl 42.

Aulacopleurinae Angelin 1854 subfam. of Otarionidae defined and considered to contain Aulacopleura (Aulacopleura) Hawle & Corda 1847, A. (Paraaulacopleura) Chaubet 1937 and Aulacopleurina Přibyl 1949 p. 439, PRANTL & PŘIBYL 42.

Basilicus? sp. from Idaho p. 106 pl. xxvii figs. 2-5, Ross 50.

Basiliella trumpyi sp. n. Tremadoc in text [Arenigian on plate explanation] Colombia p. 665 pl. xevii figs. 17, 18, HARRINGTON & KAY J. Paleont. 25 5 1951.

Bathyurellus permarginatus Cullison referred to Jeffersonia p. 77, Ross 50.

Bathyuriscidea see Corynexo-choidae and Zacanthoidacea,

Bathyuriscus Meek referred to Dolichometopidae p. 157, B. adaeus Walcott p. 157 pl. xxxii figs. 1-6, B. rotundatus (Rominger) p. 158 pl. xxviii figs. 2, 3, B. ? sp. undet. p. 158 pl. xxiii figs. 15, 16, RASETTI Smithson. Misc. Coll. 116 5 1951.

Bathyurus amplimarginatus Billings 1865 referred to Jeffersonia p. 77, Ross 50.

Bathyurus extans (Hall), p. 264 pl. i figs. 5-7, Howell 24.

Bathyurus? sp. p. 93 Cambrian (Upper) Argentina, Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Bellefontia Ulrich discussed p. 97, B. chamberlaini Clark from Idaho p. 98 pl. xxiv figs. 1-7, pl. xxv figs. 10-15, pl. xxiii figs. 1, 2, pl. xxiii

fig. 4 including hypostoma. B.? acuminiferentis sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 97 pl. xxiv figs. 15-18, pl. xxv figs. 6-9, B.? sp. undescribed pl. xxvi fig. 16, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Berkeia Resser 1937 genus discussed p. 623, B. granulosa sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 624 pl. lxxxix figs. 3-6, B. typica Resser p. 624 pl. lxxxix figs. 1, 2, B. lata Frederickson p. 624 B. saratogoensis Resser 1942 referred to Dellea and B. glabellamersa Wilson 1949 referred to synonymy p. 638, J. L. WILSON J. Paleont. 25 5 1951.

Berkeia saratogensis Resser p. 802 pl. i fig. 3, Fisher & Hanson 14.

Berkeia sculptilis Resser referred to Sulcocephalus Wilson p. 897, J. L. Wilson & Frederickson 77.

Berkeia typica Resser p. 774 pl. cvii fig. 15, Nelson 32.

Bilobites Rafinesque 1831 recalled as a trilobite name but that no trilobites have been identified with this name since 1831 p. 228, Weller 74.

Birmanites Sheng 1934 transferred from Asaphidae to Dikelocephalidae (Paracoosinae) subfam. n. p. 523, B. birmanicus Reed p. 524 text-fig. 1, KOBAYASHI J. geol. Soc. Japan 58 663 1950.

Blountia prolifica p. 286 pl. xlvii figs. 2-4, B. waddlensis p. 287 pl. xlvi figs. 6-9, B. warriorensis p. 287 pl. xliv fig. 29, spp. n. B. sp. undet. 1 p. 288 pl. xlvii figs. 5, 6, 21 Cambrian (Upper) U.S.A. (Pennsylvania), TASCH J. Paleont. 25 3 1951.

Bohemopyge Přibyl 1951 non 1950 see Erratum.

Bonnaspis Resser 1936 referred to Corynexochidae, B. stephenensis (Walcott) p. 188 pl. xxviii figs. 4-6, RASETTI 44.

Bonneterrina aspinosa sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 288 pl. xlvii figs. 11, 12, Таксн J. Paleont. 25 1951.

Borthaspis gen. n. [nom. n. for Psilocephalina Stubblefield 1951 non Hsü 1948] type species Psilocephalus innotatus Salter Tremadoc Britain (Wales) p. 440, STUBBLEFIELD Geol. Mag. 88 6 1951.

Brachymetopinae subfam. n. (Otarionidae) defined and considered to comprise Brachymetopus McCoy 1847, Brachymetopina Reed 1903, Cordania Clarke 1892, Cheiropyge Diener 1897, Namuropyge R. & E. Richter 1939 and with doubt Haploconus Raymond and Tschernyschewella Toll 1899 (nom. n. for Schmidtella Tschernyshew 1893 non Ulrich 1892) p. 440, Pranyll & Přibyl Sborn. geol. Úst. Česk. Paleont. 17 (for 1950), 1951.

Brachymetopus lodiensis (Meek) p. 274, B. cuyahogae (Claypole) p. 274 pl. vi fig. 1, Howell 24.

Brachymetopus (subgen.?) sp. p. 255, R. & E. RICHTER 48.

Briscoia è kraglievichi sp. n. Cambrian (Middle) Argentina p. 15 text-fig. 22 (p. 26), Rusconi Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Bronteus furcifer Barrande 1872 non Hawle & Corda 1847 renamed Scutellum (Scutellum) analogum sp. n. p. 13, B. waldschmidti von Koenen 1882 referred to S. (Thysanopeltis) speciosum w. p. 17, B. thysanopeltis Barrande 1872 partim to S. (T.) s. abreviatum subsp. n. p. 19, B.? infaustus Barrande 1872 non 1852 included in synonymy of S. (S.) gerveilleicans (Barrande) p. 5, B. tardissimus Barrande 1872 of S. (S.) richteri p. 10, Prantt 40.

Bronteus castroi Mallada p. 226, BATALLER 1.

Bumastus è vogdesi sp. n. Silurian U.S.A. (Georgia) p. 269 pl. iii fig. 2, B. insignis (Hall) p. 267, B. chicageensis revised generic reference for Illaenus c. Weller p. 267 pl. iii fig. 3, B. armatus (Hall) p. 268 pl. iii figs. 4-6, B. ioxus (Hall) p. 269, pl. iii fig. 7, pl. v fig. 1, Howell Trens. S. Diego Soc. nat. Hist. 11 11 1951.

Burlingia hectori Walcott untouched photo of holotype reproduced p. 138 pl. xxviii fig. 1, RASETTI 44.

Burlingiidae referred with doubt to Conocoryphacea p. 194, Henningsmoen 23. Burnetia urania (Walcott) discussed and B. exilis, B. ectypa, B. cava and B. pennsylvanica all Resser 1942 referred to synonymy p. 625 pl. lxxxix figs. 13-18, J. L. Wilson 76.

Buttsia gen. n. [unassigned family] for type B. drabensis sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 627 pl. lxxxix figs. 12, 19-24, J. L. Wilson J. Paleont. 25 5 1951.

Bythicheilus Resser synonym of Ehmania Resser p. 667, C. Lochman Balk in Harrington & Kay 22.

Bynumina Resser 1942 genus discussed p. 628, B. terrenda sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 628 pl. lxxxix figs. 7-11 text-fig. 1 (p. 629), J. L. Wilson J. Paleont. 25 5 1951.

Caborcella rara sp. n. Cambrian (Middle) Canada (Brit. Columbia) p. 211 pl. xv figs. 21-23, C. skapta revised assignation for Ptychoparia s. Walcott 1917 p. 210 pl. xiii figs. 1-4, C. granosa for Poulsenia g. Resser 1939 p. 211, RASETTI Smithson. Misc. Coll. 116 5 1951.

Calliops callicephalus (Hall) p. 287, Howell 24.

Calodiscus oelandicus Westergård referred to Aculeodiscus gen. n. p. 210, ŠNAJDR 63.

Calvinella wisconsinensis Ulrich & Resser p. 784 pl. cx fig. 21, Nelson 32.

Calymene (Synhomalonotus) attenuata sp. n. p. 289 pl. iii figs. 6, 7, C. (S.) tristani Brongniart p. 288 pl. iii figs. 4, 5, C. (Colpocoryphe) aragoi Rouault pp. 280, 289 pl. iii figs. 26, 27, C. (Pharostoma?) aff. pulchra Barrande p. 290 pl. iii figs. 8–10 Ordovician Morocco, Gigout Notes et Mém. Serv. géol. Marce 86 1951.

Calymene (Calymene) aff. reperta (Oehlert) p. 442 pl. xxiii figs. 2, C. (C.) reperta fig. 2 text-fig. 2a, C. (C.) bureaui Péneau p. 444 text-fig. 26, C. (C.) blumenbachi Brongniart p. 444 text-fig. 2c, C. (C.) interjecta Hawle & Corda p. 444 text-fig. 2d, C. (C.) platys Green p. 444, C. (C.) curvicauda R. & E. Richter p. 445, C. (C.) sp. p. 445, PILLET 35.

Calymene vogdesi Foerste p. 280 pl. vii figs. 5-7, C. celebra Raymond p. 280, C. platys Green p. 281, C. declinata Corda p. 297, C. blumenbachi Brongniart p. 298, Howell 24.

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Calymene sp. p. 9 text-figs. 9-12, Kurten 28.

Calymenella rostrata (Vogdes) p. 283 pl. vii figs. 8-10, Howell 24.

Calymenella aff. media Barrande in Morocco p. 286 pl. iii figs. 28-30, GIGOUT 17.

Camaraspis convexa (Whitfield) p. 630 pl. xc figs. 1-8, J. L. Wilson 76.

Camaraspis convexa (Whitfield) p. 774 pl. evii figs. 18, Nelson 32.

Camaraspoides berkeyi (Resser) p. 631 pl. xc fig. 9, J. L. Wilson 76.

Camaraspoides berkeyi (Resser) p. 774 pl. evii figs. 6, 14, Nelson 32.

Canotagnostidae fam. n. for Canotagnostus gen. n. p. 13, RUSCONI Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Canotagnostus gen. n. [Canotagnostidae] for type C. huarpeanus sp. n. Cambrian (Middle) Argentina p. 13 text-fig. 20 (p. 26), RUSCONI Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Canotiana gen. n. [? a proparian] for C. villavicensis p. 74 fig. 5 (p. 83), C. calensis p. 75 fig. 6 (p. 83), and C. lasherensis p. 75 fig. 7 spp. n. [no type species indicated] Cambrian (Upper) Argentina, Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Caphyra radians Barrande p. 291, Howell 24.

Carbonocoryphe R. & E Richter 1950 distinguished from Diacoryphe gen. n. p. 252, R. & E. RICHTER 48.

Carolinites Kobayashi 1940 discussed, claimed that pre-occipital lobes of Stubblefield's description are extra-glabellar lobes which in subsequent evolution may migrate into glabella p. 82. C. genacinaca sp. n. Ordovician (Lower) U.S.A. (Idaho and Utah), p. 84 pl. xviii figs. 25, 26, 28–36, Rasetti quoted concerning C. sp. from Canada p. 31, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Catadoxides Matthew 1899 excluded from Paradoxididae p. 187, HENNINGSMOEN 23.

Ceratocephala see Acidaspis.

Ceratocephala anchoralis (Miller) p. 277 pl. vii fig. 2, C. vogdesi Etheridge & Mitchell p. 305, C. longispina (Mitchell) illustrated by photography for first time p. 305 pl. xiii figs. 1, 2, HOWELL 24.

Ceratopygidae considered possibly to share a common origin with Asaphidae or the latter to have originated from early Ceratopygidae p. 196 referred to Asaphacea p. 195, HENNINGSMOEN 23.

Ceraurus new reconstruction of ventral side p. 467 text-fig. 15, Størmer 64.

Ceraurus pleurexanthemus Green serial sections cut of cephalon, wax models prepared and reconstructions illustrated p. 108 text-figs. 1-5, 8-11, pl. i figs. 1-3, pl. ii figs. 1-4, pl. iii figs. 1-9, pl. iv figs. 1-2, STØRMER 65.

Ceraurus pleurexanthus [sic] thoracic articulation illustrated for comparison with Tesselacauda depressa p. 144 text-fig. 3(3), Ross 50.

Ceraurus pleurexanthemus Green p. 284 pl. viii figs. 1-2, Howell 24.

Chancia Walcott 1924 genus discussed p. 212, C. latigena p. 212 pl. xxi figs. 15-17, C. bigranulosa p. 213 pl. xxii figs. 1-6, C. odarayensis p.216 pl. xxxiii figs. 15, 16, C. stenometopa, p. 216 pl. viii fig. 20 spp. n., C. palliseri revised assignation for Ptychoparia p. Walcott 1908 p. 214 pl. xxix figs. 1-3, Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Chasmops macrourus (Angelin), Sjögren not considered to be valid author of species p. 299, Howell 24.

Cheilocephalus buttsi Resser p. 631 pl. xci fig. 19, C. sp. undet, p. 631 pl. xcv figs. 6, 7, J. L. Wilson 76.

Cheiruracea Öpik 1937 accepted for Cheiruridae, Encrinuridae and Pliomeridae and viewed as probable descendants of Conocoryphacea p. 203, Henningsmoen 23.

Cheiruridae (Heliomerinae) subfam. n. for Heliomera Raymond and Heliomeroides gen. n. p. 588, EVITT J. Paleont. 25 5 1951.

Cheirurus sternbergi (Boeck) p. 298, Howell 24.

Cheirurus (Crotocephalus) aff. sternbergi (Boeck) p. 445 pl. xxiii fig. 4, PILLET 35.

Clavagnostus calensis sp. n. Cambrian (Upper) Argentina p. 73 fig. 3 (p. 83), RUSCONI Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Clelandia Cossman 1902 genus discussed p. 116, C. utahensis sp. n. Ordovician (Lower) U.S.A. (Idaho and Utah) p. 117 pl. xxix figs. 1-4, 6-9 pl. ix figs. 20-22 ?, 26 ?, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Cliffia gen. n. [like Acrocephalites] for type Acrocephalites lataegenae Wilson 1949 p. 632 pl. xc figs. 18-24, J. L. WILSON J. Paleont. 25 5 1951.

Cococoryphacea error pro Conocoryphacea p. 203, Henningsmoen 23.

Coignouina Reed 1943 see Otarion.

Colpocoryphe see Calymene.

Comanchia gen. n. [family unassigned] for type Ptychopleurites amplooculata Frederickson Cambrian (Upper), U.S.A. (Oklahoma) pp. 897, 900 holotype refigured, pl. i figs. 6, 7, FREDERICKSON in WILSON & FREDERICKSON Amer. J. Sci. 248 12 1950.

Conaspis perseus (Hall) p. 650, pl. xev fig. 1, C. retractabra sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 650 pl. xev figs. 19, 20, J. L. Wilson J. Paleont. 25 5 1951.

Conaspis perseus (Hall) p. 775 pl. cvii fig. 11, Nelson 32.

Conocephalites castroi Barrois p. 225, Bataller 1.

Conocoryphacea Swinnerton 1915 accepted as comprising Richter's Ptychopariidea with Olenidae, Otarionidae, many Cambrian families, Proetidae, Harpidae, and with doubt Shumardiidae, Entomaspididae and Burlingiidae p. 191, HENNINGSMOEN 23. Conocoryphe (Couloumania) brevifrons Thoral in Morocco p. 269, C. cf. brevifrons p. 270 pl. i fig. 7, GIGOUT 17.

Conoparia Hawle & Corda 1847, Vogdes' 1925 selection of Cyphaspis barrandei H. & C. as type considered invelid since this species not among original species proposed by H. & C. for this genus; Barrande's 1852 opinion supported that Conoparia a synonym of Cyphaspis and therefore of Otarion p. 444, Prantl & Přibyl 42.

Coosella convexa sp. n. p. 289 pl. xlvii figs. 13-15, C. c. magnalimbata var. n. p. 290 pl. xlvii figs. 8, 9, C. aff. convexa p. 290 pl. xlvi figs. 13, 14, C. vulgaris sp. n. p. 290 pl. xlv. figs. 19, 20, C. sp. undet. 1 p. 291 pl. xlv figs. 14, C. sp. undet 2 p. 291 pl. xlvi figs. 19, 20 Cambrian (Upper) U.S.A. (Pennsylvanian), Tasch J. Paleont. 25 3 1951.

Coosia quadrata p. 771 pl. evi fig. 6, C. willowensis p. 771 pl. evi figs. 1, 3 spp. n., C. w. var. A. var. n. p. 772 pl. evi figs. 2, 4, Cambrian (Upper) U.S.A. (Wisc.), Nelson J. Paleont. 25 6 1951.

Coosia? pustulata sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 291 pl. xlvii fig. 10, Tasch J. Paleont. 25 3 1951.

Coronura aspectans (Conrad) p. 287. Howell 24.

Corycephalus dentatus (Barrett) p. 286 pl. viii fig. 4, Howell 24.

Corynexochidae Angelin see Bonnaspis.

Corynexochoidae, name used for superfamily in place of Bathyuriscidea for priority reasons but post-Cambrian families excluded; the following families included Corynexochidae, Dolichometopidae, Ogygopsididae fam. n., Dorypygidae, Zacanthoididae and Oryctocephalidae p. 139, RASETTI 44.

Crepicephalus sp. undet. 1 p. 292 pl. xlvi fig. 12, Tasch J. Paleont. 25 3 1951.

Crepichilella gen. n. [resembles Berkeia and Sulcocephalus] for type C. antietamensis sp. n. Cambrian

TICA (Merriand) n 651

(Upper) U.S.A. (Maryland) p. 651 pl. xev figs. 8-10, 12, J. L. Wilson J. Paleont. 25 5 1951.

Croixana gen. n. [near Stigmacephalus] for type Arionellus bipunctatus Shumard Cambrian (Upper) U.S.A. (Minnesota) p. 775 pl. cvii figs. 10, 12, Nelson J. Paleont. 25 6 1951.

Cryphaeus (Malladaia) luciae Oehlert p. 185, Bataller 1.

Cryptolithidae considered to have arisen from a group evolved from Norwoodiidae (Holcacephalinae) p. 106, Shaw 61.

Cryptolithus tessellatus Green p. 262, C. goldfussi p. 290, Howell 24.

Cryptonymus Eichwald 1825 discussed p. 222, FLETCHER 15.

Cummingella Reed 1942 relationship with Liobolina and Linguaphillipsia discussed p. 245, R. & E. RICHTER 48.

Cybele nicholsoni Reed [a query inserted on expl. pl.] p. 367, hypostoma figured pl. i fig. 14, Begg 4.

Cyclognathus Linnarsson 1875 non St. Hilaire 1833 renamed Acerocarina nom. n. with type C. micropygus Linnarsson p. 97, Poulsen 37.

Cyphaspidedinae Přibyl 1947 subfam. of Otarionidae defined and restricted to contain only *Cyphaspides* Novák 1890 p. 438, Prantl & Přibyl 49

Cyphaspides Novák 1890 discussed p. 475 C. comatus (Barrande 1872) p. 477 lectotype selected, pl. iv figs. 2, 3 pl. v figs. 8–11, including hypostomes, C. svobodai sp. n. Devonian (Middle) p. 480 pl. iii fig. 8, C. holinensis holinensis Růžička p. 482 pl. v fig. 2, C. h. barrandei subsp. n. Devonian (Middle) p. 483 pl. ii figs. 10–13, pl. v fig. 5, C. cerberus (Barrande 1846) p. 485 lectotype selected, pl. i figs. 15, 16, pl. iv fig. 6, C. nováki sp. n. Devonian (Lower) p. 487 pl. iii fig. 9 Czechoslovakia, Prantl & Přibyl Sborn. geol. Ust. Česk. Paleont 17 (for 1950) 1951.

Cyphaspis discussed and author deemed to be Burmeister 1843 not Barrande 1846 as held by R. & E.

Richter 1926 and Int. Comm. Zool. Nomenel. Opinion 88, 1926; type held to be *Phacops ceratophthalmus* Goldfuss 1843=C. clavifrons Burmeister 1843 non Dalman 1826 which is congeneric with *Otarion diffractum* Zenker 1833 p. 442, Prantl & Přibyl 42.

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Cyphaspis christyi Hall p. 274 pl. v figs, 7, 8, C. elegantula (Lovén) p. 295, C. megalops (McCoy) p. 295, C. yassensis p. 305 pl. xii figs. 1, 2, HOWELL 24.

Cyrtoproetus Reed 1943 Stubblefield's 1948 opinion upheld that (C.) is not a subgenus of Cyrtosymbole as claimed by Reed p. 232, R. & E. RICHTER 48.

Cyrtosymbole (Macrobole) subgen: n. for type C. (M.) drewerensis sp. n. Carboniferous (Lower) Germany p. 235, C. (M.) drewerensis drewerensis subsp. n. p. 235 pl. i figs. 7-11, pl. v figs. 47a, b text-figs. IM, 3a, b, C. (M.) d. longisuta subsp. n. p. 238 pl. i figs. 12, 13, pl. v figs. 48a, b, C. (M.) duodecimae p. 238 pl. ii figs. 18-21, pl. v figs. 49a, b text-figs. 4a, b. C. (M.) blax p. 240 pl. ii figs. 14-16, ? 17, pl. v figs. 50a, b text-figs. 5a, b, C. (M.) hercules p. 242 pl. iv figs. 43, 44 text-figs. 6a, b, C. (M.?)ogivalis p. 244 pl. iv fig. 42 text-figs. 7a, b, spp. n. Carboniferous (Lower) Germany, abruptirachis, C. (M.?) anglica revised assignation for C. anglica, R. Richter 1912 p. 239 C. (Waribole) (R. & E. Richter 1919) lectotype chosen and refigured p. 233 pl. i figs. 1-6, pl. v figs. 46a, b text-figs. 2a, b, C. (W.) warsteinensis p. 231 text-fig. 1W, C. (W.) aequalis revised assignation for Phillipsia a. Meyer 1831 p. 232, C. (W.) laevicauda for Proetus laevicauda Sarres 1857 p. 232, C. sulcata Paul 1939 type destroyed during war considered as nomen dubium p. 222, C. richteri Tolmachoff from Ellesmereland not a C. possibly a Schizoproetus p. 222, R. & E. RICHTER Senckenbergiana 32 1-4 1951.

Dalmanitina socialis (Barrande) p. 299, Howell 24.

Dalmanitina tellecheai sp. n. Cambrian (Upper) Argentina p. 263 [unillustr.], Rusconi An. Soc. cient. Argent. 152 6 1951.

Dalmanites limulurus (Green) p. 285, Howell 24.

Dalmanites socialis proeva Emmrich in Morocco p. 291, GIGOUT 17.

Dawsonia Hartt 1868 held to be nomenclatorially invalid p. 207, D. dawsoni (Hartt) referred to subspecies of Aculeodiscus bohemicus gen. et sp. n. p. 210, SNAJDR 63.

Deadwoodia duris (Walcott) p. 633 pl. xcii figs. 1-5, J. L. Wilson 76.

Dechenella (Dechenella) gigouti R. & E. Richter p. 332 pl.vii figs. 12-15, GIGOUT 17.

Dechenella verneuili (Barrande) p. 295, Howell 24.

Dechenella? raclawicensis Jarosz referred to Liobole p. 246, R. & E. RICHTER 48.

Dechenella romanovskii Tchernyshev p. 125, Ellern, Troepolski & Baltchunas 9.

Deckera completa sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 634 pl. xc figs. 10-17, J. L. Wilson J. Paleont. 25 5 1951.

Dellea Wilson 1949 generic description revised and type species D. wilbernensis considered to be a synonym of D. suada (Walcott 1890) p. 636 pl. xci figs. 4-10, 18, 20-23, 25, 26, Asaphiscus? florus referred to synonymy p. 637, D. saratogoensis revised generic assignation for Berkeia s. Resser 1942 and B. glabellamersa Wilson 1949 referred to synonymy p. 638 pl. xci figs. 12-17, D. butlerensis Frederickson p. 639 pl. xci figs. 1-3, 11, J. L. WILSON 76.

Dicranogmus bartonensis sp. n. Silurian (Lower) Australia (N.S.W.) p. 226 pl. xvi fig. 8, Fletcher Rec. Austral. Mus. 22 3 1950.

Diacoryphe gen. n. [Proetidae] (Tropidocoryphinae) for type D. pfeifferi sp. n. p. 252 pl. iv figs. 34-37 pl. v figs. 54a, b text-figs. 10a, b, D. gloriola sp. n. p. 254 pl. iv fig. 38, pl. v figs. 55a, b Carboniferous (Lower) Germany, R. & E. RICHTER Senckenbergiana 32 1-4 1951.

Dikelocephalacea Richter 1932 viewed as containing Dikelocephalidae and with doubt. Illaenuridae, Kainellidae (prob. syn. of Richardsonellidae), Macropygidae (prob. syn. of Remopleuridae), Ptychaspidae, Remopleurididae and Richardsonellidae p. 208, HENNINGSMOEN 23.

Dikelocephalidae (Paracoosinae) subfam. n. for Paracoosia Kobayashi 1939 and Birmanites Sheng 1934 p. 523, KOBAYASHI J. geol. Soc. Japan 58 663 1950.

Dikelocephalus minnesotensis Owen p. 784 pl. cx figs. 14, 17, D. thwaitesi Ulrich & Resser p. 783 pl. cx figs. 13, 19. Nelson 32.

Dimastocephalus Stubblefield see Carolinites.

Dimeropygiella gen. n. [supposed progenitor of Dimeropyge] for type D. caudanodosa sp. n. Ordovician (Lower) U.S.A. (Utah) p. 124 pl. xxxv figs. 18, 22-28, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Dipleura dekayi Green p. 284, Howell 24.

Ditomopyge scitula (Meek & Worthen) p. 277, Howell 24.

Dokimocephalus intermedius (Resser) p. 640 pl. xc fig. 25, J. L. Wilson 76.

Dolerolenus gen. n. [=nom. n.] for Olenopsis Bonermann [error pro Bornemann] 1891 non Ameghino 1889 Cambrian Sardinia p. 36, Leanza Riv. Asoc. Geol. Argentina 4 1 1949.

Dolichoharpes Whittington discussed p. 605, D. reticulata Whittington p. 607 pl. lxxxvii figs. 5-10, pl. lxxxviii figs. 1-8 including hypostoma, EVITT 11.

Dolichometopidae referred to Corynexochoidae p. 138, Fieldaspis gen. n. p. 159 [quod vide] Parkaspis gen. n. p. 169 [quod vide], Ptarmiganoides gen. n. p. 178 [quod vide], Stephanaspis gen. n. p. 180 [quod vide], Wenkchemnia gen. n. p. 183 [quod vide] see also Athabaskia, Bathyuriscus, Glossopleura, Klotziella, Poliella, Polypleuraspis, Ptarmigania, Vanuxemella, Undet. pygidium No. 1 p. 187 pl. xv figs. 10, 11, Undet. pygidium No. 2 p. 187 pl. x fig. 10 Cambrian (Middle) Canada, RASETTI Smithson. Misc. Coll. 116 5 1951.

Dolichometopsis Poulsen, the following Resser 1939 species referred to Ptarmiganoides gen. n. [quod vide], D. alia, D. comis, D. communis, D. gravis, D. gregalis, D. lepida, D. mansfieldi, D. media, D. potens, D. poulseni, D. propinqua and D. stella p. 179, RASETTI 44.

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Dorypygidae Kobayashi referred to Corynexochoidae p. 139 RASETTI 44 also see Kootenia and Olenoides.

Drabia gen. n. [unassigned family] for type D. acroccipita sp. n. p. 640 pl. xciv figs. 3-5, 8, U.S.A. (Pennsylvania), D. menusa sp. n. p. 641 pl. xciv figs. 6, 7, 26 (Pennsylvania), D. curtoccipita p. 641 pl. xciv figs. 22-25, 27, D.? sp. undet p. 641 pl. xciv figs. 1, 2 U.S.A. (Virginia) Cambrian (Upper), J. L. WILSON J. Paleont. 25 1951.

Drevermannia nitida Růzička p. 1 text-fig. 1, Růzička 59.

Ehmania akanthophora p. 666 pl. xevi figs. 1-5, E.? amphibola p. 667 pl. xevi figs. 6-9 spp. n. Cambrian (Middle) Colombia, Harrington & Kay J. Paleont. 25 5 1951.

Ehmaniella burgessensis sp. n. for Ptychoparia permulta Walcott 1918 partim p. 217 pl. xxx figs. 9-16, E. waptaensis sp. n. p. 219 pl. xxx figs. 6-8 spp. n. Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Ellipsocephalidae assigned to Redlichiacea pp. 188, 206, Hennings-MOEN 23.

Eleutherocentrus Clark 1935 genus discussed and considered to be related to Goniotelus p. 69, E. williamsi sp. n. Ordovician (Lower) U.S.A. (Utah) p. 69 pl. xiv figs. 16-22, 25, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Ellipsocephalus polytomus Wahlenberg p. 12 text-fig. 14, Kurten 28.

Ellipsocephalus pradoanus Verneuil & Barrande p. 225, Bataller 1.

Elrathia permulta (Walcott 1918) restricted and E. dubia Resser 1937 considered to be an objective synonym p. 220 pl. xxx figs. 1, 2, E. permulta (Walcott 1918 partim) renamed as Ehmaniella burgessensis

sp. n. [quod vide] p. 217, E. palliseri (Walcott) assigned to Chancia p. 214, RASETTI Smithson. Misc. Coll. 116 5 1951.

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Elrathina Resser genus discussed and claimed that inconstancy of number of thoracic segments may occur within the limits of a single species p. 221, E. parallela p. 22 pl. xxxiii figs. 19-22, E. brevifrons p. 223 pl. xxvii figs. 6, E. spinifera p. 223 pl. xxxiv figs. 11-14, E. marginalis p. 224 pl. xxxiv figs. 8-10, 15 spp. n., E, cordillerae (Rominger) p. 221 pl. xxvi figs. 7-9 Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Elvinia roemeri (Shumard), Bridge 1937 followed in assigning Resser's 1942 16 species to this synonymy p. 642 pl. xcii figs. 18–22, J. L. Wilson 76.

Elvinia roemeri (Shumard) p. 775 pl. cvii fig. 8, Nelson 32.

Elvinia ruedemanni Resser p. 502 pl. i figs. 2, 3, Fisher & Hanson 14.

Encrinurus Emmrich 1844 discussed also its nomenclatorial relationship to Cryptonymus Eichwald 1825 and Cromus p. 221, E. borenorensis sp. n. Silurian (Lower) Australia (N.S.W.) p. 227 pl. xv figs. 1-7, pl. xvi figs. 1, 5, 6, FLETCHER Rec. Austral. Mus. 22 3 1950.

Encrinurus americanus Vogdes 1886 syntype pygidia figured for first time p. 278 pl. vii figs. 3, 4, E. variolaris (Brongniart) p. 296, E. punctatus (Brünnich) p. 296, E. bohemicus (Barrande) p. 297, E. beaumonti (Barrande) p. 297, E. mitchelli Foerste p. 305, E. browringi Foerste p. 306, Howell 24.

Encrinunus multisegmentatus girvanensis hypostoma figured p. 367 pl. i fig. 15, Begg 4.

Eobronteidae not accepted as name for Scutellidae p. 206, Henningsmoen 23.

Eodiscidae retained linked with Agnostidae in superfamily Agnostacea p. 179, HENNINGSMOEN 23.

Eophacops catoosaensis sp. n. Silurian U.S.A. (Georgia) p. 289 pl. x figs. 2-4, Howell Trans. S. Diego-Soc. nat. Hist. 11 11 1951.

Eops R. & E. Richter considered synonym of *Perrector* (on page priority) quod vide p. 187, Henningsmoen 23.

Eoptychaspis gen. n. [intermediate between Conaspis and Ptychaspis] for type E. cylindricus (sic) sp. n. p. 107 pl. cviii figs. 1-5, E. c. var A. var. n. p. 778 pl. cviii figs. 8, 9, Cambrian (Upper) U.S.A. (Minnesota), Nelson J. Paleont. 25 6 1951.

Erinnys venulosa Salter type species of Meneviella nom. n. p. 213, STUBBLE-FIELD 67.

Eshelmania gen. n. [unassigned family] for type E. snoburgensis sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 642 pl. xeii figs. 9-15, E. convexa sp. n. Cambrian (Upper) U.S.A. (Maryland) p. 642, pl. xeii figs. 7, 8, J. L. WILSON J. Paleont. 25 5 1951.

Euloma excluded from Olenidae and Aulacopleuridae, should be assigned to "another possibly new Conocoryphacean family" this family "possibly close to ancestors of the Odontopleuracea" p. 302, Henningsmoen 23.

Fieldaspis gen. n. [Dolichometopidae] for type F. furcata sp. n. p. 159 pl. xv figs. 1-8, F. bilobata sp. n. p. 161 pl. xvi figs. 1-7, F. cf. F. bilobata p. 162 pl. xvi figs. 8, 9, F. superba sp. n. p. 162 pl. xvi figs. 10-18 (including hypostoma) Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Flexicalymene senaria (Conrad) p. 281, F. meeki (Foerste) p. 282, HOWELL 24.

Gallagnostus solitariensis sp. n. Cambrian (Upper) Argentina p. 72 figs. 2a, b (p. 83), Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Genevievella campbellina p. 292 pl. xlvi figs. 17, 18, pl. xlvii fig. 1, G.? pennstatensis p. 293 pl. xliv fig. 7, G. plesiochielus p. 293 pl. xliv fig. 5, pl. xlvi figs. 15, 16 spp. n. Cambrian (Upper) U.S.A. (Pennsylvania), Tasch J. Paleont. 25 3 1951.

Geragnostus (Micragnostus) bisectus Matthew var. typica p. 111 pl. xxi fig. 18 pl. xxiii figs. 12-18, G. (M.) bisectus brevis var. n. p. 112 pl. xxxiii fig. 11 Cambrian (Upper) U.S.A. (Vermont), Shaw J. Paleont. 25 1 1951.

Geragnostus jahuelensis sp. n. Cambrian (Upper) Argentina p. 72 figs. la, b (p. 83), Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Geragnostus microcephalus p. 91 text-fig. 7 (p. 94), G. huarpensis p. 91 text-figs. 8a, b (p. 94) spp. n. Cambrian (Upper) Argentina, Ruscont Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Geragnostus tilcuyensis (Kayser) lectotypes designated and specimen from Columbia illustrated p. 659 pl. xevi fig. 18, Harrington & Kay 22.

Glossopleura Poulsen referred to Dolichometopidae p. 163, G. templensis p. 164 pl. xxiv figs. 14-17, G. stenorhachis p. 165 pl. xxiv figs. 7, 8, G. skokiensis p. 166 pl. xxiii figs. 6-10, G. merlinensis p. 167 pl. xxiii figs. 1-5 spp. n., G. boccar (Walcott) taken to include in synonymy G. bosworthensis Resser (holotype refigured) and G. nitida Resser (holotype refigured), and with doubt G. stephenensis Resser p. 164 pl. xxiv figs. 1-6, G. mckeei Resser p. 165 pl. xxiv figs. 9-12, 18, G. sp. undet. p. 168 pl. xxiv fig. 13 Cambrian (Middle) Canada, RASETTI Smithson. Misc. Coll. 116 5 1951.

Glyphaspis parkensis sp. n. Cambrian (Middle) Canada (Brit. Columbia) p. 224 pl. xxxiv figs. 5-7, RASETTI Smithson. Misc. Coll. 116 5 1951.

Goniagnostus [spelt Gogniagnostus] on explanation of text-fig.] verrucosus p. 5 text-fig. 5 (p. 25), G. rotundatus p. 6 text-fig. 6 (p. 25) spp. n. Cambrian (Upper) Argentina, Ruscom Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Goniophrys gen. n. [Komaspidae, Stubblefield quoted as favouring Telephidae] for type G. prima sp. n. p. 81 pl. xviii figs. 9, 15, 17-20, 22, 27 undetermined genus and species A, cf. Goniophrys p. 84 pl. xviii figs. 21, 23, 24 Ordovician (Lower) U.S.A. (Idaho), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Goniopleura Hawle & Corda 1847 non Westwood 1832 considered taxonomically uncertain and referred to Otarionidae (Otarioninae) p. 438, p. 446, PRANTL & PŘIBYL 42.

Goniotelus ? sp. pygidium illustrated from Lower Ordovician of Idaho pl. xv fig. 12, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Goniotelus see Eleutherocentrus.

Goycoia gen. n. [family unassigned] for G. tellecheai p. 76 fig. 8 (p. 83), G. limpida p. 77 fig. 9 (p. 83) spp. n. [no type species indicated] Cambrian (Upper) Argentina, Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Griffithides acuminatus Weigner 1937 referred to synonymy of Weberides mucronatus (McCoy) p. 11, G. acuminatus Susta 1928 to W. mládeki mládeki (Smetana 1916) p. 12, G. sudeticus Patteisky 1930 to W. p. 15, G. leei Woodward 1884 to W. p. 16, Přibyl 43.

Griffithides bufo Meek & Worthen p. 277 pl. vi fig. 6, pl. vii fig. 1, HOWELL 24.

Hallaspis Raasch & Lochman 1943 declared to be a synonym of Pemphigaspis Hall its type species being a cranidium of the type species pygidium of Pemphigaspis p. 762, Palmer 34.

Hallaspis matutina (Hall), p. 294 pl. xliv figs. 11, 12, Tasch 70.

Hanburia Walcott 1916 unassigned to any family, dorsal cephalic sutures and eyes considered to be absent, H. gloriosa Walcott p. 197 pl. xxv fig. 15, Rasetti 44.

Hardyoides Kobayashi 1951 placed as subgenus of Holcacephalus [quod vide].

Harpes venulosa Corda p. 290, H. trinucleoides Etheridge and Mitchell p. 301, Howell 24.

Harpidella McCoy 1849 considered as taxonomically uncertain and referred to Otarionidae (Otarioninae) p. 438, Prantl & Přibyl 42.

Hartshillia maroccana sp. n. Cambrian (Middle) Morocco p. 270 pl. i figs. 10-12 text-fig. 56, GIGOUT Notes et Mém. Serv. Géol. Maroc 86 1951.

Hedinaspis gen. n. [nom. n. for Hedinia Troedsson 1937 non Navás 1936] type Hedinia regalis Troedsson p. 695, TROEDSSON Geol. Fören. Förhandl. 73 4 1951.

Hedinia Troedsson 1937 non Navás 1936 renamed Hedinaspis p. 695, Troedsson Geol, Fören, Förhandl. 73 4 1951.

Heliomera sol (Billings) p. 603 pl. lxxxv figs. 24-29, H. raymondi Bradley renamed Heliomeroides r. p. 600 (quod vide), H. sol Raymond non Billings renamed Heliomeroides sp. p. 602, EVITT 11.

Heliomeroides gen. n. [Cheiruridae (Heliomerinae)] for type H. teres sp. n. Ordovician (Middle) U.S.A. (Virginia) p. 593 pl. lxxxv figs. 1-5, pl. lxxxvi figs. 1-18, pl. lxxxvi figs. 1-4 text-fig. 1, H. raymondi revised generic name of Heliomera raymondi Bradley p. 600 pl. lxxxv figs. 6-14, H. treta sp. n. Ordovician (Middle) U.S.A. (Virginia) p. 601 pl. lxxxv figs. 15-23, H. sp. revised name for Heliomera sol Raymond (non Billings) p. 602, EVITT J. Paleont. 25 5 1951.

Heliomerinae subfam. n. see Cheiruridae.

Hillyardina gen. n. [fam. and affin. unstated like Hyperbolochilus] for type H. semicylindrica sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 71 pl. xvi figs. 1-9, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Hoekaspiella gen. n. [unassigned family] for H. spinosa sp. n. Cambrian (Middle) p. 65 fig. 1 (p. 70) and H. mendozana (Rusconi 1947) p. 65 [no type species indicated] H.? magna sp. n. p. 66 fig. 2 (p. 70) Argentina, Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Holcacephalus Resser 1938 referred to Norwoodiidae (Holcacephalinae) subfam. n. p. 105, H. (Hardyoides) glabrus sp. n. Cambrian (Upper) U.S.A. (Vermont) p. 106 pl. xxiv figs. 1-5, H. (Levisaspis) proposed revised reference of L. Rasetti p. 105, Shaw 1951 J. Paleont. 25 1 1951.

Holcacephalus tunda atypicala var. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 294 pl. xliv figs. 25, 26, Tasch J. Paleont. 25 3 1951. Holmia new photograph p. 463 text-fig. 11, STØRMER 64.

Holubaspis Přibyl 1951 non 1950 see Errata.

Homagnostus villavicensis sp. n. Cambrian (Upper) Argentina p. 92 text-fig. 9 (p. 94), Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Homagnostus peladensis [p. 2] textfig. 1, H. 2 manantialensis [p. 2] text-figs. 2a, 2b spp. n. Cambrian (Upper) Argentina, Rusconi Bol. Paleont. Buenos Aires 24 1951.

Homagnostus jarillensis sp. n. Cambrian (Middle) Argentina p. 14 text-fig. 21 (p. 26), RUSCONI Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Homagnostus sp. p. 110 pl. xxiv figs. 7, 8 Cambrian (Upper) U.S.A. (Vermont), Shaw J. Paleont. 25 1 1951.

Homalonotus (Plaesiacomia) rarus Corda in Morocco p. 285 pl. iii fig. 3, H. sp. p. 285 pl. iii figs. 1, 2, H. efroemeri de Koninck p. 300 pl. iv figs. 4, 5, H. rhenanus Koch p. 311 pl. iv fig. 18, H. gervillei de Verneuil p. 312 pl. iv fig. 17, Gigout 17.

Homalonotus pradoanus Verneuil p. 226, Bataller 1.

Housia Walcott 1924 genus discussed and considered to be more allied to Asaphidae than to Ceratopygidae and not a synonym of Proceratopyge as affirmed by Whitehouse 1939, p. 643, H. vacuna (Walcott) p. 643 pl. xciii figs. 5–13, J. L. Wilson 76.

Huarpagnostus gen. n. [?Geragnostidae] for type H. costatus sp. n. [erroneously called a pygidium] p. 92 text-fig. 10 [reconstruction from several specimens] (p. 94) Cambrian (Upper) Argentina, Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Hyperbolochilus gen. n. [superficially like Hillyardina] for type H. marginauctum sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 77 pl. xvii figs. 24-27, 30-31, 34, 35, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Hypothetica gen. n. [near Echarpes] for type H. rawi sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 113 pl. xxviii fig. 11, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Hystricurus Raymond revised generic description p. 39, H. genalatus p. 40 pl. viii figs. 1-13, pl. ix figs. 1-13, 17-19; H. paragenalatus p. 42 pl. viii figs. 14-26, pl. ix figs. 1-13, 17-19; H. politus genus allotted a query on explanation of plate ix, p. 45 pl. ix figs. 23, 24, 27, 28, 32, 33 and ? 14, pl. xv figs. 1-6; *H. oculilunatus* p. 47 pl. x figs. 1-3, 5, 8, 9, 12; H. contractus p. 48 pl. x figs. 4, 6, 7, 10; H. flectimembrus p. 48 pl.x figs. 25, 26, 29–33, pl. xi figs. 16, 17?, 18?, 20-33; H. acumennasus p. 50 pl. xi figs. 6, 7, 10-12, 15, 17 ? 18 ?; H. robustus p. 51 pl. x figs. 11, 13-16, 20, pl. xiv fig. 27; spp. n. U.S.A. (Idaho) H. sp. A. p. 53 pl. ix figs. 31, 34, 37; H. sp. B. p. 53 pl. x figs. 18, 19, 23, 24, 27, 28; H. ? sp. C. p. 54 pl. x figs. 17, 21, 22; H. sp. D. p. 54 pl. ix figs. 35, 36, 38–41; H. ? sp. E. p. 54 pl. xv figs. 10, 11, 13, 14; H. ? sp. F. p. 55 pl. xv figs. 7, 8, 9; H. ? sp. G. p. 55 pl. xv figs. 1-3; H. ? sp. H. p. 56 pl. xiv figs. 9, 10, 11, 13-15; H. ? sp. I. p. 56 pl. xvii figs. 1-3 Ordovician (Lower) U.S.A. (Idaho and Utah), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Hystricurus? corralensis sp. n, Cambrian (Middle) Argentina p. 17 text-fig. 27 (p. 26), Rusconi Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Idahoia hera (Walcott) p. 778 pl. cix fig. 16, Nelson 32.

Illaenurus quadratus Hall p. 783 pl. ex fig. 11, Nelson 32.

Illaenus lermontensis sp. n. Ordovician (Middle) U.S.A. (Pennsylvania) p. 165 pl. i figs. 1-3, Tasch Canad. Field Nat. 65 5 1951.

Illaenus esmarki (Schlotheim) p. 293, Howell 24.

Illaenus sanchezi Verneuil & Barrande p. 226, BATALLER 1.

Inglefieldia birdsalli Howell 1936 referred to Amecephalus and with reserve to A. cleora (Walcott) p. 210, I. perola (Walcott) to Syspacephalus, p. 244, RASETTI 44.

Irvingella major Ulrich & Resser, I. burnetenis Resser and I. media Resser as recognised by Wilson 1949 referred to synonymy p. 644 pl. xciii figs. 14, 21–23, J. L. Wilson 76.

Trilobita

Irvingella major Ulrich & Resser after statistical study of cephala, I. oblonga, I. plana, I. burnetensis and I. media Resser referred to synonymy p. 612 pl. ii figs. 1-32 text-figs. 2-5, Gaines 16.

Isoteloides? sp. from Utah pl. xxvii figs. 28-30, Ross 50.

Isotelus gigas De Kay p. 265 pl. ii fig. 3, pl. iii fig. 1, pl. iv figs. 1, 2, I. maximus Locke p. 266, Howell 24.

Ithycephalus sp. undet. p. 295 pl. xliv fig. 21, TASCH J. Paleont. 25 3 1951.

Jeffersonia peltabella sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 76 pl. xvii figs. 7, 8, 12, 13, 16-22, J. missouriensis Cullison p. 76 pl. xv fig. 15, J. amplimarginatus revised generic assignment for Bathyurus a. Billings 1865 p. 77, J. permarginatus for Bathyurellus p. Cullison 1944, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Kainella colombiana sp. n. Tremadoc Colombia p. 660 pl. xevi figs. 11, 12, HARRINGTON & KAY J. Paleont. 25 5 1951.

Kainella Walcott 1925 referred to Ramopleurididae of which name Kainellidae considered a synonym p. 199. Henningsmoen 23.

Kawina Barton genus discussed p. 126, K. sexapugia sp. n. Ordovician (Lower) U.S.A. (Utah) p. 127 pl. xxxv figs. 6, 7, 11-17, 19-21, K. vulcanus (Billings) confirmed pygidial assignation p. 127, Ross Bull. Peabody Mus. nat. Hist. 5 1951.

Keithiella parca sp. n. Cambrian (Upper) Argentina p. 82 [unillustr.] RUSCONI Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Keithiella? solitariensis sp. n. Cambrian (Middle) Argentina p. 17 textfig. 25 (p. 26), RUSCONI Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Kindbladia wichitaensis (Resser) p. 645 pl. xeii figs. 23, 24, J. L. WILSON 76.

Kingstonia cheilusis p. 296 pl. xlv fig. 15, K. trapezoidia p. 296 pl. xliv figs. 8–10, K. ulrichi p. 297 pl. xliv figs. 18-20 spp. n., K. apion Walcott p. 295 pl. xliv figs. 23, 24, 27, 28,

K. ara (Walcott) p. 295 pl. xlv figs. 4, 5, K. walcotti Resser p. 298 pl. xliv figs. 6, 16, 17 Cambrian (Upper) U.S.A. (Pennsylvania), TASCH J. Paleont. 25 3 1951.

Kirkella Kobayashi genus discussed p. 91, K. declevita sp. n. p. 91 pl. xxi figs. 1-12 pl. xxii figs. 4, 5, pl. xxiii figs. 1-3 hypostome illustrated, K. sp. p. 94 pl. xxvi figs. 14, 18 Ordovician (Lower) U.S.A. (Utah), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Klotziella Raymond referred to Dolichometopidae p. 168, K. ornata p. 168, pl. xxviii figs. 7, 8, RASETTI 44.

Kochaspis Resser 1935 genus discussed p. 225, K. eiffelensis sp. n. Cambrian (Middle) Canada (Brit. Columbia) p. 226 pl. xiv. figs. 4-10, RASETTI Smithson. Misc. Coll. 116 5 1951.

Kochiella Poulsen 1927 genus discussed p. 227, K.? maxeyi sp. n. p. 228 pl. xiii figs. 5-8, K.? cf. K. maxeyi p. 229 pl. xiii fig. 9 Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Kochina macrops sp. n. p. 231 pl. xix figs. 17-19 Canada (Brit. Columbia) K. americana (Walcott) with K. bosworthensis Resser referred to synonymy without comment though lectotype of latter refigured p. 229 pl. xix figs. 20-23 Cambrian (Middle). RASETTI Smithson, Misc. Coll. 116 5 1951.

Kootenia referred to Dorypygidae p. 188, K. dawsoni Walcott p. 189 pl. xxvii figs. 4-7, K. burgessensis Resser p. 189 pl. xxviii figs. 9-11. RASETTI 44.

Kyphocephalus Miller 1936 genus discussed p. 645, K. ponderosus sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 646 pl. xciii figs. 16–19, J. L. Wilson J. Paleont. 25 5

Lachnostoma gen. n. [Asaphidae] for type L. latucelsum sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 94 pl. xxi figs. 13-25, pl. xxii figs. 3, 6-8, pl. xxiii figs. 5, 6 including hypostoma, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Lancastriidae Kobayashi probable synonym of Oryctocephalidae p. 184, Henningsmoen 23.

Leiostegium manitouense Walcott illustrated from Idaho p. 105 pl. xxvii fig. 1, Ross 50.

Lepidoproetus subgen. n. see Proetus.

Levinia gen. n. [Dolichometopidae] for type L. brachypyge sp. n. p. 78 fig. 12 (p. 83), L. caudata sp. n. p. 84 [unillustr.] Cambrian (Upper) Argentina, Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4.

Levinia? isidrensis sp. n. Cambrian (Middle) p. 3 text-fig. 1 (p. 25), L. manantialis sp. n. Cambrian (Upper) p. 8 text-fig. 11 (p. 25), L. hornensis sp. n. Cambrian (Middle) p. 18 text-fig. 28 (p. 26) Argentina, Ruscon Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Levisaspis Rasetti 1943 placed as subgenus of Holcacephalus p. 105, compared with Hardyoides and Holacephalus p. 106, Shaw 61.

Lichapyge Callaway discussed p. 123, Ross 50.

Licnocephala gen. n. [near Amechilus] for type L. bicornuta sp. n. p. 109 pl. xxviii figs. 12-14, ?pl. xxx fig. 25, U.S.A. (Idaho), L.? sp. p. 111 pl. xxviii figs. 4, 5, 9 U.S.A. (Utah) Ordovician (Lower), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Linguaphillipsia Stubblefield 1948 relationship with Liobolina and Cummingella discussed p. 245, R. & E. RICHTER 48.

Liobole genus diagnosis p. 231, L. glabra glabra p. 231 text-fig. 1 Le, L. sp. revised determination of Phillipsia polleni? Woodward 1902 pl. 20 fig. 1 from Barnstaple, Devon, England p. 245, L. raclawicensis new generic reference for Dechenella? r. Jarosz p. 246, L. nitida for Phillibole? nitida (Holzapfel) p. 232, R. & E RICHTER 48.

Liobole see Phillibole.

Liobolina gen. n. [Proetidae (Proetinae)] for type L. nebulosa sp. n. Carboniferous (Lower) Germany p. 245 pl. iii figs. 28-33, pl. iv fig. 45, pl. v figs. 51a, b text-figs. 1 La. 8a, b,

L. submonstrans sp. n. Carboniferous (Lower) Germany p. 248 pl. iii figs. 22-27, pl. v figs. 52a, b text-figs. 9a, b, R. & E. RICHTER Senckenbergiana 32 1-4 1951.

Liocalymene clintoni (Vanuxem) p. 282, Howell 24.

Liostracus tener Hartt var. n. Cambrian (Middle) Morocco p. 273 pl. i figs. 8, 9, GIGOUT Notes et Mém. Serv. géol. Maroc 86 1951.

Litagnostus raymondi nom. n. for Phalacroma parilis Raymond 1924 non Agnostus p. Hall 1863 p. 113 pl. xxiv fig. 6, Shaw J. Paleont.25 1 1951.

Llanoaspidella gen. n. [Llanoaspidae] for type L. warriorsmarkensis sp. n. p. 298 pl. xlvii figs. 16-20, L. bigenusia sp. n. p. 299 pl. xliv figs. 14, 15 Cambrian (Upper) U.S.A. (Pennsylvania), TASCH J. Paleont. 25 3 1951.

Lloydia parva sp. n. Ordovician (Lower) Canada (Quebec) p. 263 pl. i figs. 3, 4, Howell Trans. S. Diego Soc. nat. Hist. 11 11 1951.

Loganellus macropleurus Rasetti p. 263 pl. i fig. 2, Howell 24.

Lonchocephalus planus p. 299 pl. xlvi figs. 1, 2, L. swartzi p. 300 pl. xlv figs. 16, 17, L. waddlei p. 300 pl. xlv, figs. 1-3 spp. n. Cambrian (Upper) U.S.A. (Pennsylvania), Tasch J. Paleont. 25 3 1951.

Lonchocephalus bunus Walcott p. 772 pl. cvi figs. 5, 8, L. chippewaenensis Owen 1852 with Conocephalites minor Hall 1863 referred to synonymy p. 722 pl. cvi fig. 11, L. sospita Walcott 1916 referred to synonymy of Terranovella dorsalis (Hall) on authority of Raasch p. 773, Nelson 32.

Lusatiops R. & E. Richter 1941 assigned with doubt to Redlichiidae p. 190, Henningsmoen 23.

Macrobole subgen. n. of Cyrtosymbole [quod vide].

Macropyge gladiator sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 122 pl. xxvii figs. 8-10, pl. xxx figs. 14, 22, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Macropyge gladiator Ross pygidial development described and illustrated p. 585 pl. lxxxiv figs. 1-10, Ross 51.

Macropygidae Kobayashi regarded as synonym of Remopleurididae p. 199, HENNINGSMOEN 23.

Marrolithus ornatus (Sternberg) p. 290, Howell 24.

Megalaspis? cf. desiderata (Barrande) hypostoma figured in place from Belgium, p. 6 pl. i fig. 1, R. & E. RICHTER 47.

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Mendolaspis gen. n. [like Megalaspis] for type M. salagastensis sp. n. p. 262 [unillustr.] Cambrian (Upper) Argentina, Rusconi An. Soc. cient. Argent. 152 6 1951.

Mendoparabolina gen. n. [unassigned family] for type M. pirquinensis sp. n. Cambrian (Upper) Argentina [p. 3] text-figs. 4a, b, Rusconi Bol. Paleont. Buenos Aires 24 1951.

Menevia Lake 1938 non Schaus 1928 renamed Meneviella nom. n. p. 213, STUBBLEFIELD 67.

Meneviella gen. n. [Conocoryphidae nom n. for Menevia Lake 1938 non Schaus 1928], Cambrian (Middle) Britain (Wales) type species Erinnys venulosa Salter p. 213 lectotype chosen p. 213, STUBBLEFIELD Geol. Mag. 88 3 1951.

Menodiscus [spelt Mendociscus on expln. of fig.] gen. n. [Eodiscidae? (Brevidiscinae)] for type M. tuberculatus sp. n. Cambrian (Middle) Argentina p. 74 fig. 4 (p. 83), RUSCONI Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Menomonia calymenoides (Whitfield) p. 301 pl. xlvii fig. 7, TASCH 70.

Menomoniidae following Warburg, Raw and others referred to Conocoryphacea p. 193, Henningsmoen 23.

Menoparia gen. n. [near Apato-kephalus] for type M. genalunata sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 87 pl. xx figs. 13-24, 28, 29, 34-35, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Menoparia genalunata Ross and/or Scinocephalus solitecti Ross early developmental history described and illustrated p. 579 pl. lxxxii fig. 1-14, pl. lxxxiii fig. 19, M. genalunata, meraspid cranidia illustrated pl. lxxxi figs. 18, 19, holaspid cranidia and small pygidium pl. lxxxiii figs. 20, 21, Ross 51.

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Mexicella stator (Walcott) p. 231 holotype refigured pl. xx figs. 14–19, RASETTI 44.

Micragnostus Howell 1935 accepted as subgenus of Geragnostus [quod vide] p. 111, Shaw 61.

Millardia optata (Hall) p. 773 pl. evi fig. 13, Nelson 32.

Missisquoia gen. n. [Phacopidae (Acastinae)] for type M. typicalis sp. n. Cambrian (Upper) U.S.A. (Vermont) p. 108 pl. xxiii figs. 1-10 with early stages, Shaw J. Paleont. 25 1 1951.

Modocia benorensis sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 301 pl. xlvi figs. 3-5, Tasch J. Paleont. 25 3 1951.

Modocia walcotti Lochman p. 773 pl. cvi figs. 10, 12, Nelson 32.

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Niobe? sp. from Idaho p. 106 pl. xxvii figs. 24-26, 31, Ross 50.

Niobella? Tremadoc Colombia p. 666 pl. xevi fig. 23, Harrington & Kay J. Paleont. 25 5 1951.

Norwoodella Resser 1938 referred to Norwoodiidae (Norwoodinae) p. 105, Shaw 61.

Norwoodia Walcott 1916 referred to Norwoodiidae (Norwoodinae) p. 105, Shaw 61. Norwoodiidae following Raw and others placed in Conocoryphacea p. 193, Henningsmoen 23.

Norwoodiidae referred to Cryptolithidea p. 105, two subfamilies proposed Norwoodiinae for Norwoodia and Norwoodella and Holeacephalinae subfam. n. for Holeacephalus, H. (Hardyoides), H. (Levisaspis) Paranorwoodia p. 105, N. (Holeacephalinae) considered to have given origin to a group from which came Cryptolithidae p. 106, Shaw J. Paleont. 25 1 1951.

Notocoryphe gen. n. [Conocoryphidae?] for type N. andinus sp. n. Cambrian (Upper) Argentina p. 92 text-fig. 11 (p. 94), Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Notocoryphe and inus Rusconi pygidum described and illustrated from Middle Cambrian p. 17 text-fig. 26 (p. 26), Rusconi 56.

Novákaspis Přibyl 1946 placed as synonym of Otarion Zenker 1833 p. 445, Prantl & Přibyl **42**.

Novákaspis barrandei (Corda) p. 441, pl. xxiii fig. 3, PILLET 35.

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Odontochile spinifera Barrande in Morocco p. 312 pl. iv figs. 20-22, GIGOUT 17.

Odontopleura bowningensis Etheridge & Mitchell p. 303, O. rattei E. & M. p. 304 pl. xii fig. 3, O. parvissima E. & M. p. 304, O. jenkinsi (E. & M.) p. 304, pl. xii fig. 4, HOWELL 24.

Odontopleuracea Swinnerton recognised for Ceratocephalidae, Odontopleuridae Selenopeltidae and with doubt Telephidae and Lichidae p. 199 Henningsmeen 23.

Ogyginus ? scalaris sp. n. Cambrian (Upper) Argentina p. 84 [unillustr.], Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Ogygites canadensis (Chapman) p. 265 pl. i fig. 8, pl. ii figs. 1-2, Howell 24.

Ogygites desideratus Barrande in Morocco p. 280 pl. ii figs. 7-10, GIGOUT 17.

Ogygopsididae [sic] fam. n. for Ogygopsis Walcott 1889 of which Taxioura Resser is considered to be a subjective synonym p. 190, family referred to superfamily Corynexochoidae p. 139, RASETTI Smithson. Misc. Coll. 116 5 1951.

Ogygopsis Walcott 1889, genus discussed, Warburg's opinion of exclusion from Asaphidae confirmed, genus referred to Ogygopsididae [sic] fam. n. p. 190, Taxioura Resser 1939 considered to be a subjective synonym p. 191, O. klotzi (Rominger) p. 191 pl. xii figs. 1-5, pl. xxi figs. 1-3, pl. xxix figs. 6-8 (including hypostoma), O. spinulosa sp. n. Cambrian (Middle) Canada (Brit. Columbia) p. 192 pl. xxi fig. 4, RASETTI Smithson. Misc. Coll. 116 5 1951.

Olenellacea Swinnerton 1915 following Poulsen 1927 restricted to Olenellidae p. 184, Henningsmoen 23.

Olenidae referred to Conocoryphacea p. 191 in this family facial sutures meet in front axially "but having no doublure, a median suture is not developed", p. 192, HENNINGS-MOEN 23.

Olenoides Meek referred to Dorypygidae p. 189, D. serratus (Rominger) p. 189 pl. xxvii figs. 1-3, RASETTI 44.

Olenoides australis sp. n. Cambrian (Upper) Argentina p. 77 fig. 10 (p. 83), Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Olenoides serratus Rominger p. 128 new reconstruction of appendages, text-figs. 8, 12, Størmer 65.

Olenopsididae [sic] thought to be either a synonym or subfamily of Redlichiidae p. 186, Henningsmoen 23.

Olenopsis Bonermann [error pro-Bornemann] 1891 non Ameghini 1889 renamed Dolerolenus p. 36, LEANZA Riv. Asoc. Geol. Agentina 4 1 1949. Olenopsis? agnesensis Walcott 1912 referred to Amecephalus p. 207, O. cleora Walcott 1917 including with reserve in synonymy O. crito Walcott 1917 to Amecephalus p. 208, RASETTI 44.

Onchocephalus fieldensis p. 232 pl. xiv figs. 11-14, O. depressus p. 233 pl. xiv figs. 15-17, O. maior p. 234 pl. xiv figs. 19-23, O. sublaevis p.234 pl. iv fig. 18 spp. n. O. thia (Walcott) p. 232 pl. viii figs. 1, 2 Cambrian (Middle) Canada (British Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Orometopus Brögger accepted in Raphiophoracea but doubtfully in Trinuceidae p. 203, Henningsmoen 23.

Orria peladensis sp. n. Cambrian (Upper) Argentina [p. 4] text-fig. 6, RUSCONI Bol. Paleont. Buenos Aires 24 1951.

Orria solitaria sp. n. Cambrian (Middle) Argentina p. 66 unillustr., Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Oryctocephalidae referred with doubt to Zacanthoidacea p. 184, Henningsmoen 23.

Oryctocephalidae Beecher referred to superfamily Corynexochoidae p. 139, considered to include Oryctocara, Oryctocephalites, Oryctocephalus and Tonkinella p. 193, RASETTI 44.

Oryctocephalites resseri sp. n. Cambrian (Middle) Canada (Brit. Columbia) p. 196 pl. xv fig. 9, RASETTI Smithson. Misc. Coll. 116 5 1951.

Oryctocephalus matthewi sp. n. p. 195 pl. xxvi figs. 4, 5, O. sp. undet. No. 1 p. 193 pl. ix fig. 24, O. sp. undet. No. 2 p. 193 pl. ix fig. 23 Cambrian (Middle) Canada (Brit. Columbia), O. reynoldsi Reed p. 193 pl. xxix figs. 4, 5, O. burgessensis Resser p. 194 pl. xxvi figs. 1–3, RASETTI Smithson. Misc. Coll. 116 5 1951.

Osceolia osceola (Hall) p. 783 pl. ex figs. 9, 10, Nelson 32.

Otarion genus discussed p. 442, O. (O.) diffractum diffractum Zenker 1833 p. 449, lectotype chosen, pl. i figs. I, 2, 17-19; pl. iii fig. 2, O. (O.) diffractum novaki Bouček 1935 lectotype chosen p. 454, O. (O.) convexum

(Hawle & Corda) 1847, p. 455 pl. i figs. 13, 14, pl. ii fig. 15, pl. v figs. 3, 12, O. (O.) cornigerum (H. & C. 1847) p. 458 lectotype chosen pl. i figs. 9, 10, pl. iii figs. 5, 6, O. (O.) aff. cornigerum p. 459, O. (O.) barrandei barrandei (H. & C. 1847) p. 459 pl. i figs. 3-8, pl. iv figs. 1, 4, 5, 0. (0.) b. intermedium subsp. n. Devonian (Middle) p. 464 pl. iii fig. 1, O. (O.) advenum advenum sp. n. Devonian (Middle) p. 466 pl. iv fig. 7, O. (O.) a. senior subsp. n. Devonian (Lower) p. 468 pl. iii figs. 3, 4, O. (O.) advenum aff. senior p. 469, O. (O.) schrieli Kegel 1927 p. 470, O. ? humillimum (Barrande 1852) p. 472 pl. i figs. 27, 28; O. davidsoni (Barrande (Coignouina) 1852) p. 474 pl. i figs. 11, 12, O. (C.) coronata p. 474 pl. v fig. 14 Czechoslovakia, PRANTL & PŘIBYL Sbor. geol. Ust. Česk. Paleont. 17 (for 1950) 1951.

Otarion (Otarion) chauffouri sp. n. for O. sp. Pillet (1948 pl. 17 figs. 3, 3a) p. 440 text-fig. 1, O. (O.) cf. gaultieri (Rouault) p. 44, Devonian (Lower) France, PILLET Bull. Soc. géol. France [5] 20 7-9 for 1950 1951.

Otarionidae authorship of family ascribed to Salter 1864 p. 255, R. & E. RICHTER 48.

Otarionidae R. & E. Richter 1926 defined and taken to include Otarioninae, R. & E. R. 1926, Cyphaspidedinae Přibyl 1947, Aulacopleurinae Angelin 1854 and Brachymetopinae subfam. n. p. 437, Prantl & Přibyl 42.

Otarioninae R. & E. Richter 1926 defined and considered to comprise Otarion Zenker 1833, Törnquistia Reed 1896, Dimeropyge Öpik and the taxonomically uncertain genera Harpidella McCoy 1849, "Goniopleura" Hawle & Corda 1847 p. 438, PRANTL & PŘIBYL 42.

Pachyaspis attenuata sp. n. Cambrian (Middle) Canada (Brit. Columbia) p. 235 pl. xxxiii figs. 12-14, RASETTI Smithson. Misc. Coll. 116 5 1951.

Pachycranium gen. n. [fam. unspecified] for type P. faciclumis sp. n. p. 72 pl. xvi figs. 12, 13, 17-24, 28, 29, P. ? sp. p. 73 pl. xvii figs. 4-6, 9-11, 14, 15 Ordovician (Lower)

U.S.A. (Idaho), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Paenebeltella gen. n. [resembles Beltella] for type P. vultulata sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 78 pl. xviii figs. 1, 2, 5, 6 pl. xix fig. 10, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Pagetia bootes Walcott p. 137 pl. xxv figs. 6-10, P. cf. P. bootes p. 137 pl. xxxiii figs. 9-11, P. sp. undet. p. 138 pl. xxii figs. 13, 14, RASETTI 44.

Palaeolenus despite its olenellidlike pygidium should be retained in Ellipsocephalidae p. 189, Henningsmoen 23.

Panarchaeogonus Öpik not considered to be closely related to Aulacopleura Hawle & Corda p. 436, Prantl & Přibyl 42.

Paraaulacopleura see Aulacopleura.

Parabolina australis sp. n. [p. 3] text-figs. 3a, 3b Cambrian (Upper) Argentina, Rusconi Bol. Paleont. Buenos Aires 24 1951.

Parabolinella Brögger genus discussed p. 101, P. triarthroides Harrington p. 102 pl. xxii figs. 1-10, P. pheidolopyge Harrington referred to Plicatolina gen. n. p. 103, P. rugosa (Brögger) referred with doubt to Plicatolina p. 103, Shaw 61.

Parabolinella occidentalis sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 651 pl. xev figs. 2-5, 11, J. L. Wilson J. Paleont. 25 5 1951.

Parabolinoides expansa p. 776 pl. cvii figs. 1, 3, P. parallela p. 776 pl. cvii fig. 13 spp. n. Cambrian (Upper) U.S.A. (Minnesota), Nelson J. Paleont. 25 6 1951.

Parabolinopsis? sp. [pygidia] p. 662 pl. xcvi figs. 13, 15, 16, Harrington & Kay J. Paleont. 25 5 1951.

Parabriscoia castellanosi sp. n. Cambrian (Middle) Argentina p. 15 text-fig. 23 (p. 26), Rusconi Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Paracoosinae [sic] subfam. n. see Dikelocephalidae.

Paradoxides paradoxissimus p. 11 text-fig. 13, Kurten 28.

Paradoxides rugulosus Corda in Morocco p. 268 pl. i figs. 1-6 text-fig. 55, GIGOUT 17.

Paradoxides pradoanus Verneuil & Barrande p. 225, BATALLER 1.

Paradoxididae placed with Redlichacea rather than Zacanthoidacea p. 190, HENNINGSMOEN 23.

Parahystricurus gen. n. [like Hystricurus] for type P. fraudator sp. n. p. 56 pl. xii figs. 1-16; P. oculirotundus p. 59 pl. xii figs. 33-49; P. pustulosus p. 60 pl. xii figs. 17-32, pl. xiv figs. 23, 24, 26; P. carinatus p. 60 pl. xiii figs. 23-27, 30-32, 35-37 spp. n., P. ? sp. A. p. 61 pl. xiv figs. 5, 8, 12; P. ? sp. B p. 61 pl. xiv figs. 4, 6, 7, P. ? sp. C. p. 62 pl. xxviii figs. 17, 18, 21, 22 Ordovician (Lower) U.S.A. (Idaho), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Paranorwoodia Rasetti 1945 referred to Norwoodiidae (Holcacephalinae) subfam. n. p. 105, Shaw J. Paleont. 25 1 1951.

Parkaspis gen. n. [Dolichometopidae] for type P. endecamera sp. n. p. 169 pl. xxxi figs. 7-10, P. decamera sp. n. p. 171 pl. xxvii fig. 11 Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Pemphigaspis Hall 1863 genus discussed and shown that the absolute synonym Hallaspis Raasch & Lochman 1943 based on Amphion matutina Hall 1863 is the cranidium of P. bullata, type species of, P. based on a pygidium p. 762 pl. cv figs. 1-2, P. bullata Hall (thorax figured for first time) p. 763 pl. cv figs. 3-6, P. inexpectans Lochman p. 764 pl. cv figs. 7-9, PALMER 34.

Pemphigaspis intermedia sp. n. p. 302 pl. xlvi figs. 10, 11, P. bullata waddlensis var. n. p. 302 pl. xliv fig. 13 Cambrian (Upper) U.S.A. (Pennsylvania), TASCH J. Paleont. 25 3 1951.

Perneraspis gen. n. [nom. n. for Perneria Růzička 1939 non Fritsch 1904] type species Perneria lata Růzička 1939 Cambrian Czechoslovakia p. 1, Prantl Mém. Soc. Sci. Bohême Cl. Sci. 1946 10 1947.

Perneria Růzička 1939 non Fritsch 1904, renamed Perneraspis nom. nov. p. 1, P. lata lata and P. lata quadrata interpreted as mechanically deformed examples of same species p. 1, Prantl Mém. Soc. Sci. Bohême Cl. Sci. 1946 10 1947.

Peronopsis columbiensis sp. n. p. 134, pl. xxxiii figs. 1-8, P. montis (Matthew) p. 134 pl. xxv figs. 11-14 Cambrian (Middle) Canada (British Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Perrector R. & E. Richter with its supposed synonyms Resserops and Eops referred to Redlichiacea and probably to Redlichiidae p. 187, Henningsmeen 23.

Phacopacea Salter 1864, restricted to usage of Öpik 1937, viewed as probably descendants of Cococoryphacea (error pro Conocoryphacea) p. 203, Henningsmoen 23.

Phacopidella downingiae (Murchison) p. 300, P. downingiae constricta (Salter) p. 307, Howell 24,

Phacopidella prantli Růzička p. 3 text-fig. 2, Růzička 59.

Phacopidae (Acastinae) see Missisquoia gen. n.

Phacops macdonaldi sp. n. p. 230 pl. xvi figs. 2-4, 7, 9, P. crosslei Etheridge & Mitchell p. 229, FLETCHER Rec. Austral. Mus. 22 3 1950.

Phacops sp. n. revised naming for Phacops (Portlockia) fecundus McCoy 1876 non Barrande p. 37, Gill 20.

Phacops fecundus Barrande in Morocco p. 312, p. 331, GIGOUT 17.

Phacops (P.) aff. fecundus (Barrande) p. 445 pl. xxiii fig. 5, P. (subgen.?) emarginata p. 446, PILLET 35.

Phacops cf. breviceps study of eyes p. 128 pl. x figs. 1-11 text-figs. la-g, 2, 3, 4, P. schlotheimi p. 131, pl. x fig. 12 text-figs. 5-11, P. rana p. 138 text-figs. 12, 13, BECKMANN 2.

Phacops (Phacops) elliptifrons Sars & Boeck described and figured showing a furrow on anterior part of cephalic doublure thought to serve to hold posterior portion of pygidium in place when trilobite enrolled p. 368 pl. i figs. 6-12, P. (Eocryphops) kayseri, pl. i fig. 13, Begg 4.

Phacops rana Green p. 288 pl. ix fig. 1, P. cacapona Hall p. 288 pl. ix figs. 2-4, P. hudsonica Hall p. 288 pl. ix fig. 5, pl. x fig. 1, P. cristata Hall p. 289, P. cristata pipa Hall p. 289, P. fecundus major Barrande p. 299, P. latifrons? (Bronn) p. 300, P. musheni Salter p. 300, P. serratus Foerste p. 307 pl. xii fig. 5, P. crossleii Etheridge & Mitchell p. 307 pl. xiii figs. 3, 4, Howell 24.

Phacops rana Green figured embedded in marcasite pl. lv fig. 10, Fisher 13.

Phacops? isolated eye 7 mm. long with 48 vertical rows of lenses described from Bokkeveld Beds p. 162 text-figs. 1, 2, Brink 6.

Phalacroma australis sp. n. Cambrian (Upper) Argentina p. 73 unillustr., Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Phalacroma elongata sp. n. Cambrian (Upper) Argentina p. 90 text-fig. 5 (p. 94), Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Phalacroma lasherensis sp. n. Cambrian (Upper) Argentina p. 8 text-fig. 10 (p. 25), Rusconi Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Pharostoma viewed as "an evolutionary lineage between those of the Odontopleuracea and Calymenacea" p. 201, Henningsmoen 23.

Pharostoma see Calymene.

Phillibole R. & E. Richter 1937, P. aequalis [erroneously] stated to be type species P. aequalis (Meyer) described and figured from Czechoslovakia (Moravia) p. 3 pl. i figs.1-3, Hromada 25.

Phillibole genus diagnosis p. 231, P. aprathensis p. 231 text-fig. 1, P. aequalis (Meyer) referred to Cyrtosymbole (Waribole) p. 232, P. laevicauda (Sarres) to C. (W.) p. 232, P. coddonensis revised generic assignation for Phillipsia c. Woodward 1902 p. 232, R. & E. RICHTER 48.

Phillibole R. & E. Richter 1937 genus discussed p. 2, P. (P.) aprathensis aprathensis R. & E. Richter p. 3 pl. i figs. 5-6, P. (P.) a. moravica subsp. n. p. 5 pl. i fig. 4, P. (P.) opatovicensis sp. n. for P. aequalis Hromada 1948 non Meyer p. 7 pl. i

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Phillipsia castroi Barrois p. 226, BATALLER 1.

Phillipsia mucronata subcarinata and P. m. vasta Schwarzbach 1936 referred to synonymy of Weberides mucronatus (McCoy) p. 11, P. mládeki Smetana with P. latilimbata Schwarzbach, P. l. torus as synonyms to W. mládeki mládeki p. 12, P. latilimbata cuneiformis Schwarzbach to W. m. cuneiformis p. 14, Přibyl 43.

Phillipsia insignis Winchell p. 275 pl. v fig. 9, P. major Shumard p. 275 pl. vi figs. 2, 3, P. sampsoni Vogdes p. 276 pl. vi fig. 4, P. stevensoni Meek p. 276 pl. vi fig. 5, Howell 24.

Phillipsia polleni Woodward 1894 referred to Phillibole p. 232, P. polleni? Woodward 1902 pl. xx fig. 1 from Devon referred to Liobole? p. 245, R. & E. RICHTER 48.

Phillipsia sp. from Morocco p. 341, GIGOUT 17.

Phillipsinella parabola (Barrande)? identified from Belgium p. 2, R. & E. RICHTER 47.

Piazella tuberculata sp. n. p. 236 pl. viii figs. 6-10, P. pia (Walcott) p. 236 pl. viii figs. 3-5 Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Pilekia see also Tesselacauda.

Pilekia? sp. p. 125 pl. xxxv figs. 8, 9, 10 Ordovician (Lower) U.S.A. (Idaho), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Pinctus gen. n. [resembles Berkeia] for type P. latus sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 646 pl. xciii figs. 1-4, 15, J. L. Wilson J. Paleont. 25 5 1951.

Plaesiacomia see Homalonotus.

Plagiura cercops (Walcott 1917) with Plagiurella cleades (Walcott) placed in its synonymy p. 237 holotypes of both refigured pl. xiii figs. 10–16, RASETTI 44.

Plataspella Wilson 1949 genus discussed p. 646, P. anatina Resser p. 647 pl. xeii fig. 6, J. L. Wilson **76**.

Platycalymene duplicata (Murchison) in Eire p. 295, LAMONT 29.

Platycolpus? sp. p. 121 pl. xxix figs. 22, 23, 25-34 pl. xxx figs. 12, 13, 16 Ordovician (Lower) U.S.A. (Idaho), Ross Bull. Peabody Misc. nat. Hist. 6 1951.

Plesiomegalaspis see Asaphus.

Plesiomegalaspis graffi Thoral in Morocco p. 282 pl. ii figs. 1-5, P. aff. graffi p. 293 pl. iii figs. 21-25 (including hypostomas), Gigout 17.

Plethometopus sp. p. 804 pl. i fig. 6, Fisher & Hanson 14.

Plethopeltis saratogensis (Walcott) p. 804 pl. i fig. 4, Fisher & Hanson 14.

Plicatolina gen. n. [Olenidae] for type P. kindlei sp. n. Cambrian (Upper) U.S.A. (Vermont) p. 103 pl. xxii figs. 11-17, including hypostoma, P. pheidolopyge revised assignation for Parabolinella p. Harrington 1938 p. 103, P. P limitis for Parabolinella l. (Broegger) p. 103, SHAW J. Paleont. 25 1 1951.

Poliella Walcott 1916 referred to Dolichometopidae p. 172, P. denticulata sp. n. Cambrian (Middle) Canada (British Columbia) p. 173 pl. xii figs. 6-9, P. prima Walcott 1916 restricted to the synonymy of which with doubt is referred P. castlensis Resser p. 172 pl. xii figs. 10-13, P. sp. cf. P. denticulata p. 174 pl. ix figs. 7, 8, P. sp. undet. no. 1 p. 174 pl. xxii figs. 17-19, P. sp. undet. No. 2 p. 175 pl. xxii figs. 20, 21, P. prima Walcott 1916, partim referred to Wenckchemnia walcotti sp. n. p. 184, RASETTI Smithson. Misc. Coll. 116 5 1951.

Polypleuraspis Poulsen referred to Dolichometopidae, revised diagnosis p. 175, P. insignis sp. n. Cambrian (Middle) Canada (Brit. Columbia) 30

p. 176 pl. xxiii figs. 11-15, RASETTI Smithson. Misc. Coll. 116 5 1951.

Poulsenia granosa Resser assigned to Caborcella p. 211, RASETTI 44.

Přibylia subgen. n. see Proetus.

Probolichas Phleger 1936 see Amphilichas.

Proetacea superfam. n. for Proetidae and Otarionidae p. 434, PRANTL & PŘIBYL Sborn. geol. Úst. Česk. Paleont. 17 (for 1950) 1951.

Proetidae Corda 1847 emend. Salter 1864 p. 230, P. (Proetinae) Liobolina gen. n. added to subfamily p. 231; P. (Tropidocoryphinae) Diacoryphe gen. n. added to subfamily p. 251, R. & E. RICHTER 48.

Proetus (Sculptoproetus) subgen. n, for type P. sculptus Barrande 1846 p. 13 pl. iii fig. 1, P. (S.) hunsrückianus (E. Richter) p. 13 pl. iii fig. 2, P. (S.) malacus (Lake); P. (Unguliproetus) subgen. n. for type P. unguloides Barrande 1846 pp. 13, 34 pl. iii fig. 8 text-figs. 8a-c, 1, P. (U.) fig. 9; P. (Přibylia) subgen. n. for type P. inaequicostatus Barrande 1846 p. 16, P. (Přibylia) i. inaequicostatus p. 17 pl. ii fig. 15, P. (Pr.) i. limbuscostatus subsp. n. p. 36 pl. ii fig. 16 text-fig. 9, Devonian (Lower) Germany; P. (Lepidoproetus) subgen. n. for type P. lepidus Barrande 1846 p. 17, pl. iii fig. 13, P. (L.) kegeli sp. n. Devonian (Lower) Germany p. 18, P. (L.) k. kegeli p. 38 text-fig. 10, P. (L.) k. obesus subsp. n. Devonian (Lower) Germany p. 40 text-fig. 11a-c, P. (n. subg. A.) moestus Barrande 1852 p. 19 text-fig. 2, P. (n. subg. A.) nannus sp. n. Devonian (Lower) Germany p. 41 pl. iii fig. 14 text-fig. 12; P. (Cornuproetus) dufrésnoyi (Hawle & Corda) p. 11 pl. ii fig. 5, P. (C.) d. planilimbatus subsp. n. Devonian (Lower) Germany p. 21 pl. iv fig. 5 text-fig. 3, P. (L.) trautensteinensis sp. n. Devonian (Lower) Germany p. 23 pl. iv fig. 4 test-fig. 4, P. (C.) cacuminatus (Kegel 1926) p. 25 neotype chosen and figured pl. iv

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Proetus parviusculus Hall p. 270 pl. i figs. 9, 10; P. sp. undet. p. 270 pl. v fig. 2, P. crassimarginatus (Hall) p. 271 pl. v fig. 3, P. clarus Hall p. 271, P. doris Hall p. 271 pl. iii figs. 8, 9, P. haldemani Hall p. 272 pl. v figs. 4, 5, P. bairdensis Wheeler p. 272 pl. v fig. 6, P. concinnus (Dalman) p. 293, P. bohemicus Corda p. 294, P. orbitatus (Barrande) p. 294, P. eremita Barrande p. 294, P. venustus Barrande p. 294, P. venustus Barrande p. 295, P. bowingensis Mitchell p. 302, P. rattei Etheridge & Mitchell, complete example illustrated by photography for first time p. 303 pl. xi fig. 5, Howell 24.

Proetus ryckholti Barrande in Morocco p. 301 pl. iv figs. 6-8, P. bohemicus Corda p. 313 pl. iv figs. 23, GIGOUT 17.

Proetus (Semiproetus) Reed 1943 held to be nomenclatorially invalid because the type species "P. (S.) twistonensis sp. n." was not illustrated p. 232, R. & E. RICHTER 48.

Proetus balclatchiensis p. 362 pl. i fig. 1, P. trefoilium p. 364 pl. i fig. 2

spp. n., P. sp. p. 365 pl. i fig. 3
Ordovician, P. sp. p. 366 pl. i figs.
5 Silurian Britain (Scotland), Begg
Trans. geol. Soc. Glasgow 21 2 1951.

Prosaukia curvicostata Ulrich & Resser p. 778 pl. cx figs. 6, 16, 18, Nelson 32.

Prosaukia eboracensis Resser p. 804 pl. i fig. 5, Fisher & Hanson 14.

Prosaukia? incognita sp. n. Cambrian (Upper) Argentina p. 82 [unillustr.], RUSCONI Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Prosaukia see Prousakia.

Protolenidae R. & E. Richter 1948 considered probable synonym of Ellipsocephalidae pp. 189, 206 and assigned to Redlichiacea, Henningsmoen 23.

Protopeltura praecursor (Westergård) p. 291, Howell 24.

Protopliomerops Kobayashi 1934 genus discussed p. 131, P. superciliosa sp. n. p. 133 pl. xxxii figs. 16-26, pl. xxxii figs. 1-16, pl. xxxii figs. 5-8, 19 including hypostoma, developmental history p. 145 text-fig. 2 (2a-c) text-fig. 3 (2) text-figs. 4a-f, P. celsaora sp. n. p. 135 pl. xxxii figs. 1-15, pl. xxxii figs. 9-12, 20, pl. xxxv fig. 29 including hypostoma text-fig. 2 (3a-c), P. contracta sp. n. p. 136 pl. xxxiii figs. 15-19, 22-32 including hypostoma text-fig. 2 (4a-c) Ordovician (Lower) U.S.A. (Idaho), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Prousakia [error pro Prosaukia] peladensis sp. n. Cambrian (Upper) Argentina [p. 3] text-fig. 5, Rusconi Bol. Paleont. Buenos Aires 24 1951.

Psalikilus gen. n. [no fam. or affin. indicated] for type P. typicum sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 62 pl. xi figs. 1-5, 8, 9, 13, 14, 19, P.? sp. p. 63 pl. xiii figs. 28, 29, 33, 34 pl. xxx figs. 1-3, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Pseudagnostus bilobus p. 112 pl. xxii fig. 10 pl. xxxiv figs. 17-22, P. araneavelatus p. 113 pl. xxiv figs. 12-16 spp. n. Cambrian (Upper) U.S.A. (Vermont), Shaw J. Paleont. 25 1 1951.

Pseudagnostus josepha (Hall) p. 776 pl. evii fig. 5, Nelson 32.

Pseudagnostus parabolicus [called ovatus on expl. of text-fig.] sp. n. Cambrian (Upper) Argentina p. 90 text-fig. 5 (p. 94), Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Pseudoclelandia gen.n. [no evidence for relationship with Clelandia] for type P. cornupsitaca sp. n. p. 119 pl. xxix figs. 11-13, 16, 19, P. fluxafissura sp. n. p. 119 pl. xxix figs. 14, 17, 18, P. lenisora sp. n. p. 120 pl. xxix figs. 5, 10, 15 Ordovician (U.S.A.) U.S.A. (Idaho), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Pseudocybele gen. n. [related to Protopliomerops and Cybele] for type P. nasuta sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 137 pl. xxxiii figs. 1-14, pl. xxxiv figs. 13-17, 21-27 including hypostoma text-figs. 2 (5a-c), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Pseudocybele nasuta Ross developmental history from anaprotaspid stage to metaprotaspid and cephala and pygidia of meraspid and holaspid stages described and illustrated p. 583 pl. lxxxii figs. 1–15, pl. lxxxiii figs. 1–18, Ross 51.

Pseudohystricurus gen. n. [fam. unstated] for type P. obesus sp. n. p. 74 pl. xvi figs. 25, 30, 34; P. rotundus sp. n. p. 75 pl. xvi figs. 32, 33, 35-37, P. sp. p. 75 pl. xvi figs. 26, 27, 31 Ordovician (Lower) U.S.A. (Idaho), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Pseudokainella? macarenae sp. n. Tremadoc Colombia p. 661 pl. xevi figs. 19-21, Harrington & Kay J. Paleont. 25 5 1951.

Pseudolevinia gen. n. [unassigned family] for type P. macropyge sp. n. Cambrian (Middle) Argentina p. 16 text-fig. 24 (p. 26), Rusconi Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Pseudomera? free cheek pl. xxxiii figs. 20, 21 Ordovician (Lower) U.S.A. (Idaho), Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Pseudosaratogia gen. n. [resembles Saratogia] for type P. magna sp. n. p. 64T pl. xeiv figs. 9-16 U.S.A. (Maryland), P. lata p. 648 pl. xeiv figs. 19-21, P. bulbosa p. 649 pl. xeiv

figs. 17, 18 spp. n. U.S.A. (Pennsylvania) Cambrian (Upper), J. L. Wilson J. Paleont. 25 5 1951.

Psilocephalina gen. n. [nom. n. for Psilocephalus Salter 1866 non Swainson 1839] type species P. innotatus Salter lectotype chosen p. 213 Tremadoc Britain (Wales), STUBBLEFIELD Geol. Mag. 88 3 1951.

Psilocephalus Salter 1866 non Swainson 1839 renamed Psilocephalina nom. n. p. 213, STUBBLE-FIELD 67.

Psilocephalus innotatus Salter type species of Borthaspis gen. n. p. 440, STUBBLEFIELD 68.

Ptarmigania Raymond referred to Dolichometopidae p. 177, P. rossensis (Walcott) p. 177 lectotype chosenand refigured, pl. xix figs. 9-16, P. longula Resser p. 177, RASETTI 44.

Ptarmiganiidae Resser 1939 considered probable synonym of Corynexochidae p. 183, Henningsmoen 23.

Ptarmiganoides gen. n. [Dolichometopidae] for type, P. bowensis sp. n. Canada p. 178 pl. xx figs. 1-9: the following Resser species of Dolichometopsis all referred to Ptarmiganoides D. alia, D. comis, D. communis, D. gravis, D. gregalis, D. lepida, D. mansfieldi, D. media, D. potens, D. poulseni, D. propinqua, D. stella p. 179 Cambrian (Middle) U.S.A. RASETTI Smithson. Misc. Coll. 116 5 1951.

Pterocephalia sanctisabae Roemer p. 647 pl. xei fig. 24, J. L. Wilson 76.

Ptychaspis arcolensis sp. n. Cambrian (Upper) U.S.A. (Minnesota) p. 779 pl. cx figs. 6, 7, P. granulosa (Owen) p. 779 pl. cx fig. 8, P. miniscaensis (Owen) p. 779 pl. cx fig. 20, Nelson J. Paleont. 25 6 1951.

Ptychoparia permulta Walcott 1918 restricted and Resser's 1937 reference to Elrathia confirmed though E. dubia Resser merged as an objective synonym p. 220, P. permulta Walcott 1918 partim renamed Ehmaniella burgessensis sp. n. [quod vide] p. 217, P. skapta Walcott 1917 assigned to Caborcella p. 210, P. cleadas Walcott 1917 to Plagiura cercops (Walcott) p. 237, P. perola

Walcott 1917 to Syspacephalus p. 244, RASETTI Smithson. Misc. Coll. 116 5 1951.

Ptychoparia sampelayoi Meléndez p. 224, P. azpeitiae Sampelayo p. 225, BATALLER 1.

Ptychoparia suada Walcott 1890 considered as type species of Dellea Wilson 1949 p. 636, J. L. Wilson 76.

Ptychoparioidae superfamily name preferred rather than the priority having Conocoryphidea (Conocoryphoidae) to preserve stability in concept of the superfamily p. 198, difficulties of classification discussed p. 200, genera not assigned to families within this sub-family Yohoaspis and Yuknessaspis genn. n. [quod vide], RASETTI 44.

Ptychopleurites Kobayashi 1936 discussed p. 895, plaster cast of holotype of type species P. brevifrons (Kobayashi) figured pl. i figs. 8, 9, 10, P. amplooculata Frederickson made type of Comanchia gen. n. p. 897, Wilson & Frederickson 77.

Pyraustocranium gen. n. [resembles Parabolina, Leptoplastus and Ctenopyge] for type P. orbatum sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 80 pl. xviii figs. 3, 4, 7, 8, 10-14, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Raphiophoracea (Salter 1864) fam. n. [nom. n.] since Salter's Ampycini has as its type family name, a synonym of Raphiophoridae p. 202, superfamily considered to comprise Dionideidae Endymionidae, Raphiophoridae and Trinucleidae p. 203, Henningsmoen 23.

Raphiophorus? pyrus sp. n. Tremadoc in text [Arenigian on explanation of plate] Colombia p. 659 pl. xcvii figs. 11-13, HARRINGTON & KAY J. Paleont. 25 5 1951.

Redlichiacea Richter 1932 interpreted to include Redlichiidae (with Olenopsididae [sic] possible synonym), Paradodoxididae, Ellipsocephalidae (with Protolenidae possible synonym), pp. 185, 206, Henningsmoen 23.

Reedolithus recorded from Ordovician conglomerate in Canada (Quebec), R. quebecensis sp. undescr. p. 202, LAVERDIÈRE 30.

Reedops bronni (Barrande) p. 300 HOWELL 24.

Remopleuridiella gen. n. [near Remopleurides] for type R. caudalimbata sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 85 pl. xx figs. 1-12, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Resserops R. & E. Richter considered synonym of Perrector (on page priority) quod vide p. 187, HENNINGSMOEN 23,

Richardsonellidae viewed as a separate family but retained in Dikelocephalacca with reserve pp. 197, 208, Henningsmoen 23.

Richardsonella unisulcata Rasetti p. 263 pl. i fig. 1, Howell 24.

Růžičkaia Přibyl 1951 non 1950 see Errata.

Saukianda R. & E. Richter close relationship with Dikelocephalidae discredited and genus "confidently placed in the Redlichiacea" p. 187, Henningsmoen 23.

Saukiella pyrene Walcott p. 783 pl. cx figs. 4, 7, Nelson 32.

Schistometopus Resser 1938 genus discussed p. 238, S. convexus p. 238 pl. xiii figs. 17–22, S. collaris p. 239 pl. xiv figs. 1-3 spp. n. Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Scinocephalus gen. n. [resembles Apatokephalus] for type S. solitecti sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 89 pl. xx figs. 25-27, 30-33, 36-38, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Scinocephalus solitecti Ross meraspid eranidia and free checks illustrated pl. lxxxi figs. 15–17, early pygidium, pl. lxxxiii fig. 22, early developmental history of S. solitecti and/or Menoparia genalunata Ross described and illustrated p. 579 pl. lxxxi figs. 1–14, pl. lxxxiii fig. 19, Ross 51.

Sculptoproetus subgen. n. see Proetus.

Scutellum (Scutellum) gerveilleicans (Barrande 1872) Bronteus? infaustus Barrande 1872 non 1852; included p. 5 pl. i fig. 12 in synonymy p. 5, S. (S.)

paliferum (Beyrich) p. 5 pl. 1 fig. 12, S. (S.) umbeliferum (Beyrich) p. 7 pl. i fig. 13, S. (S.) přibyli sp. n. Devonian (Lower) Bohemia p. 9 pl. ii fig. 3, S. (S.) richteri (Barrande), B. tardissimus p. 10 Barrande 1872 included in synonym pl. ii fig. 1, S. (S.) analogum sp. n. for Bronteus furcifer Barrande 1872 non Hawle & Corda 1847 Devonian (Middle) Bohemia p. 13 pl. ii fig. 9, pl. iii fig. 1, S. (Thysanopeltis) speciosum speciosum (Hawle & Corda) lectotype selected p. 13 pl. ii fig. 11, pl. iii figs. 2, 3, S. (T.) speciosum waldschmidti revised assignation for Bronteus wald-schmidti von Koenen 1882 lectotype selected p. 17 pl. ii fig. 12, pl. iii fig. 6, S. (T.) s. abreviatum subsp. n. for B. thysanopeltis Barrande 1872 partim p. 19 pl. iii fig. 7 Devonian (Middle) Bohemia, S. (T.) s. redivivum subsp. n. p. 21 pl. iii fig. 5 Devonian (Middle) Bohemia, PRANTL Rozpr. České Akad. Praha 59 (for 1950) 14 1951.

Scutellum (Scutellum) conspersum p. 2 pl. i figs. 1-11, pl. ii figs. 2, 10, S. (S.) setosum p. 12 pl. ii figs. 4-8, pl. iii fig. 4 spp. n. Devonian (Lower) Bohemia, Novák in Prantl Rozpr. České Akad. Praha 59 (for 1949) 14 1950.

Scutellum umbellifer (Beyrich) p. 293, S. partschi (Barrande) p. 293 pl. x, figs. 5, 6 S. bowningense including hypostoma (Etheridge & Mitchell) p. 301 pl. x fig. 7, S. jenkinsi (E. & M.) p. 302, pl. x fig. 8, pl. xi figs. 1-3, S. longispinifex (E. & M.) p. 302 pl. xi fig. 4, Howell 24.

Scutellum dormitzeri Barrande in Morocco p. 332 pl. vii figs. 16-19, GIGOUT 17.

Shumardiidae referred to Conocoryphaces with doubt p. 194, HENNINGSMOEN 23.

Solenopleura? cuyana sp. n. Cambrian (Middle) Argentina p. 67 unillustr., Rusconi Rev. Mus. Hist. nat. Mendoza 4 3-4 1950.

Solenopleurella Poulsen 1927 genus discussed p. 240, S. sp. undet. no. 1 p. 241 pl. xxv figs. 17, 18, S. sp. undet. no. 2 p. 241 pl. xxv fig. 16, Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Spencia Resser 1939 considered to be synonymous with Stauroholcus Resser 1939 p. 240, RASETTI 44.

Sphaerexochus romingeri Hall p. 285, S. mirus Beyrich p. 298, Howell 24.

Spinagnostus pedrensis sp. n. Cambrian (Upper) Argentina p. 8 text-fig. 9 (p. 25), RUSCONI Rev. Mus. Hist. nat. Mendoza 5 1-4 1951.

Staurocephalus murchisoni Barrande p. 306, Howell 24.

Stauroholcus Resser 1939 considered to be synonymous with Spencia Resser 1939 p. 240, RASETTI 44.

Stephanaspis gen. n. [Dolichometopidae] for type S. bispinosa sp. n. Cambrian (Middle) Canada (Brit. Columbia) p. 180 pl. x figs. 1-6, S. cf. S. bispinosa p. 182 pl. x figs. 7-9, RASETTI Smithson. Misc. Coll, 116 5 1951.

Stigmacephalus Resser 1937 discussed and restricted by moving S. bipunctatus (Shumard) to Croixana gen. n. p. 779, S. oweni (Hall) p. 780 pl. cix figs. 1, 2, 9, 14, 15, S. oweni var. A. p. 780 pl. cix figs. 3-7, S. o. var B. p. 780 pl. cviii figs. 10, 11 varr. n. Cambrian (Upper) U.S.A. (Minnesota), Nelson J. Paleont. 25 6 1951.

Stigmacephalus? distorta sp. n. Cambrian (Upper) U.S.A. (Maryland) p. 652 pl. xeii figs. 16, 17, J. L. Wilson J. Paleont. 25 5 1951.

Stigmaspis gen. n. [near Tellerina] for type S. hudsonensis sp. n. Cambrian (Upper) U.S.A. (Wisconsin) p. 781 pl. cx figs. 1-3, Nelson J. Paleont. 25 6 1951.

Strenuella calceola Cobbold from Middle Cambrian of Morocco p. 267 pl. i fig. 13, GIGOUT 17.

Strenuella sampelayoi R. & E. Richter 1940 p. 224, BATALLER 1.

Strotocephalus Resser considered to be a synonym of Amecephalus Lorenz pp. 97 and 203, RASETTI 44.

Strototropis Raymond discussed in its relationship with Protopliomerops p. 132, Ross 50.

Sulcocephalus genus discussed p. 896, S. sculptilis revised generic assignment of Berkeia sculptilis Resser p. 897 holotype refigured pl. i figs. 1–3, S. candidus (Resser) p. 896 pl. i figs. 4–5, J. L. WILSON & FREDERICKSON 77.

Sunina gen. n. [type species unstated] nom. n. for Anderssonia Sun 1925 non Kluge 1914, E. STRAND Folia zool. hydrobiol. Riga 12 1943.

Symphysurina (Symphysuroides) minima sp. n. p. 107 pl. xxi figs. 9-19 including hypostoma Cambrian (Upper) U.S.A. (Vermont), Shaw J. Paleont. 25 1 1951.

Symphysurina Ulrich 1924 genus discussed p. 114, S. cf. S. woosteri Ulrich p. 114 pl. xxiii figs. 7-12, S. sp. A. p. 115 pl. xxviii figs. 29, 31-36 pl. xxvii figs. 17 ? S. sp. B. 116 pl. xxviii figs. 19, 23, 24, 30 Ordovician (Lower) U.S.A. (Idaho), S.? entella Walcott 1925 referred to Trigonocerca gen. n. p. 104, Ross 50.

Symphysuroides Raymond 1937 placed as subgenus of Symphysurina Ulrich in Walcott 1924 [quod vide] p. 107, Shaw J. Paleont. 25 1 1951.

"Symphysurus? goldfussi" Walcott from Idaho and Utah p. 64 pl. xv figs. 16-18, Ross 50.

Symphysurus metaensis sp. n. Tremadoc in text [Arenigian on explanation plate] Colombia p. 663 pl. xevii figs. 19, 20, Harrington & Kay J. Paleont. 25 5 1951.

Synhomalonotus see Calymene.

Syspacephalus Resser 1936 genus discussed p. 241, S. gregarius p. 242 pl. viii figs. 14–19, S. laticeps p. 243 pl. ix figs. 1–6, pl. x fig. 15, S. laevigatus p. 245 pl. ix figs. 9–11, S. crassus p. 246 pl. ix figs. 9–11, S. tardus p. 247 pl. xxii figs. 7–10 spp. n. S. charops (Walcott) p. 242 pl. viii figs. 11–13, S. perola revisited assignation for Ptychoparia perola Walcott holotype refigured p. 244 pl. ix figs. 17–22, Cambrian (Middle) Canada (Brit. Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

Taenicephalus Ulrich & Resser in Walcott 1924 claimed to have median suture in cephalic doublure and referred to Elvinidae p. 199, HENNINGSMOEN 23.

Taenicephalus altus sp. n. Cambrian (Upper) U.S.A. (Minnesota or Wisconsin) p. 777 pl. cvii figs. 2, 4, 7, T. shumardi Walcott 1925 (partim) pl. 17 fig. 15, fide Raasch referred to synonymy p. 777, Nelson J. Paleont. 25 6 1951.

Taenicephalus shumardi (Hall) p. 652 pl. xcv figs. 21-23, 25, T. sp. undet. p. 653 pl. xcv figs. 18, 24, 26, J. L. Wilson 76.

Taxioura typicalis Resser assigned to Ogygopsis of which genus, T. considered to be a subjective synonym p. 191, RASETTI 44.

Tellerina leucosia (Walcott) p. 783 pl. ex figs. 5, 12, Nelson 32.

Terranovella Lochman genus discussed and referred with doubt to Ptychopariidae p. 104, T. gelasinata sp. n. Cambrian (Upper) U.S.A. (Vermont) p. 104 pl. xxi figs. 1-8, pl. xxiv figs. 9-11, Shaw J. Paleont. 25 1 1951.

Terranovella dorsalis (Hall) p. 773 pl. cvi fig. 9 and Lonchocephalus sospita Walcott 1916 referred to synonymy p. 773, Nelson 32.

Tesselacauda gen. n. [related to Pilekia] for type T. depressa sp. n. Ordovician (Lower) U.S.A. (Idaho) p. 130 pl. xxxi figs. 27-31, pl. xxxi figs. 1-4, 18 including hypostoma, text-figs. 2 (la-c) text-fig. 3 (l), Ross Bull, Peabody Mus. nat. Hist. 6 1951.

Thysanopeltis see Scutellum.

Tomagnostus? canotensis sp. n. Cambrian (Middle) Argentina p. 14 text-fig. 29 (p. 26), Rusconi Rev. Mus. Hist. nat. Mendoza 5 1−4 1951.

Tonkinella Mansuy 1916 referred to Oryotocephalidae p. 193, T. stephensis [sic] Kobayashi 1935 lectotype chosen and refigured p. 196 pl. xxxi figs. 13-18, RASETTI Smithson. Misc. Coll. 116 5 1951.

Triarthrus becki Green p. 262, Howell 24.

Tricrepicephalus arcuatus sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 302 pl. xlv figs. 9-12, TASCH J. Paleont. 25 3 1951.

p. 104 pl. xxvi figs. 5-13 including hypostome, T. entella revised assignation for Symphysurina ? e. Walcott, T. goniocerum for Xenostegium g. (Meek) [recte type species of X.], T. euclides for X. e. Walcott p. 104, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Trimerus delphinocephalus Green p. 284, Howell 24.

Triplagnostus burgessensis sp. n. Cambrian (Middle) Canada (British Columbia) p. 136 pl. xxv figs. 1-5, RASETTI Smithson. Misc. Coll. 116 5 1951.

Triplagnostus pedrensis p. 7 textfig. 7 (p. 25), T. planus p. 7 fig. 8 (p. 25) spp. n. Cambrian (Upper) Argentina, Rusconi Rev. Mus. Hist. nat. Mendoza 5 1-3 1951.

Tropidocoryphinae Přibyl 1946 see Proetidae.

Tropidopyge gen. n. [Dikelocephalidae] for type Dikelocephalus bröggeri Moberg & Segerberg 1906 p. 663, T. stenorhachis sp. n. Tremadoc in text [Arenigian on explanation of plate] Colombia p. 663 pl. xevii fig. 22, HARRINGTON & KAY J. Paleont. 25 5 1951.

Tretaspis kiaeri Størmer identified from Belgium p. 2, R. & E. RICHTER 47.

Typhloproetus Rud. Richter 1913 known range of genus extended from Upper Devonian to Lower Carboniferous p. 250, T. dietzi sp. n. Carboniferous (Lower) Germany p. 250 pl iv figs. 39-41, pl. v figs. 53a, b, T. mirkeanus Paul 1939 type destroyed in wartime considered as nomen dubium p. 222, R. & E. RICHTER Senckenbergiana 32 1-4 1951.

Typhloproetus aequalis Weber 1937 (non von Meyer) renamed Phillibole (Liobole) weberi sp. n. p. 9, T. a. var. megalophthalma Weber 1937 referred to Phillibole (Liobole) megalophthalma p. 9 Nova Zemblya, Přibyl Rozpr. české Akad. 60 (for 1950) 24 1951.

Uncaspis unca (Walcott) p. 774 pl. cvi fig. 7, Nelson 32.

Unguliproetus subgen. n. see Proetus. Uralopeltis nom. nud. p. 440, Prantl & Přibyl 42.

Vanuxemella referred to Dolichometopidae p. 183, V. nortia Walcott 1916, with Vistoia prisca Walcott 1925 referred to synonomy without comment p. 183 pl. xx figs. 10–13, RASETTI 44.

Vistoia prisca Walcott 1925 referred to synonomy of Vanuxemella nortia Walcott 1916 without comment p. 183, RASETTI 44.

Vogdesia vigilans (Meek & Worthen) p. 267 pl. ii fig. 4, Howell 24.

Waribole see Cyrtosymbole.

Weberides mucronatus (McCoy), Phillipsia mucronata subcarinata and P. m. vasta Schwarzbach 1936 referred to synonymy also Griffithides acuminatus Weigner 1937 p. 11 pl.i fig. 8, pl. ii figs. 4-6, W. mládeki mládeki (Smetana 1916) discussed with G. acuminatus Susta 1928, Phillipsia latilimbata, P. l. torus Schwarzbach 1936 referred to its synonymy p. 12 pl. ii fig. 7, W. mládeki cuneiformis revised assignment for Phillipsia latilimbata cuneiformis Schwarzbach 1936 p. 14, W. sudeticus for G. s. Patteisky 1930 p. 15 pl. i fig. 11, W. sp. n. pl. ii fig. 1 Czechoslovakia, Přibyl Rozpr. české Akad. 60 (for 1950) 24 1951.

Welleraspis cf. newfoundlandensis p. 303 pl. xlv fig. 13, Tasch 70.

Wenkchemnia gen. n. [Dolichometopidae] for type W. walcotti sp. n. [= Bathyurriscus (Poliella) primus Walcott 1916 partim] p. 184 pl. xi figs. 1-3 Canada (Alberta), W. spinicollis sp. n. p. 185 pl. xi figs. 4-8 W. sulcata sp. n. p. 186 pl. xi figs. 9-15 Canada (Brit. Columbia) Cambrian (Middle), RASETTI Smithson. Misc. Coll. 116 5 1951.

Westergardia? inornata sp. n. Tremadoe Colombia p. 662 pl. xevi fig. 10, HARRINGTON & KAY J. Paleont. 25 5 1951.

Wilbernia diademata (Hall) p. 782 pl. cix figs. 8, 11, 12, W. explanata (Whitfield) p. 782 pl. cix fig. 10, W. pero (Walcott) p. 782 pl. cix fig. 13, W. halli Resser p. 777 pl. cvii figs. 17, 19, W. halli var. A. var. n.

p. 777 pl. cvii figs. 9, 16 Cambrian (Upper) U.S.A. (Minnesota), Nelson J. Paleont. 25 6 1951.

Wilbernia sp. undet. p. 653 pl. xcv figs. 27, 28, J. L. Wilson 76.

Wossekia katzeri (Barrande) p. 292, Howell 24.

Xenocheilos spineum sp. n. Cambrian (Upper) U.S.A. (Pennsylvania) p. 649 pl. xev figs. 15-17, J. L. Wilson J. Paleont. 25 5 1951.

Xenostegium Walcott genus discussed p. 100, X. franklinense sp. n. p. 102 pl. xxiv figs. 8-14, pl. xxv figs. 1-6, "X." taurus Walcott p. 103 pl. xxvii figs. 6,7,11 Ordovician (Lower) U.S.A. (Idaho), X. goniocerum (Meek) [recte type species of X.] and X. euclides referred to Trigonocerca gen. n. p. 104, X. eudocia Walcott to Asaphellus? p. 107, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Yohoaspis gen. n. [Ptychoparioidae] for type Y. pachycephala sp. n. Cambrian (Middle) Canada (Brit. Columbia) p. 248 pl. xxi figs. 9-14, RASETTI Smithson. Misc. Coll. 116 5 1951.

Yuknessaspis gen. n. [Ptychoparioidae] for type Y. paradoxa sp. n. Cambrian (Middle) Canada (Brit. Columbia) p. 249 pl. xxxii figs. 15-18, RASETTI Smithson. Misc. Coll. 116 5 1951.

Zacanthoidacea Richter 1932, name held to hold line priority over Bathyriscidea Richter 1932 with which superfamily following Rasetti 1948, it is united p. 182 superfamily deemed to comprise Corynexochidae (with Ptarmiganiidae prob. synonym), Bathyuriscidae, Dorypygidae, Styginidae, Illaenidae, Scutellidae and probably also Oryctocephalidae (with Lancastridae probable synonym) p. 183, HENNINGSMOEN 23.

Zacanthoides referred to Corynexochoidae (Zacanthoididae), Z. sexdentatus p. 141 pl. xxii figs. 22-27, Z. submuticus p. 143 pl. xxxii figs. 11-14, Z. longipygus p. 144 pl. xxxii figs. 3-7, Z. planifrons p. 145 pl. xxxii figs. 1, 2, Z. divergens p. 146 pl. xxxii figs. 8-10 spp. n., Z. romingeri Resser p. 143 pl. xxvii figs. 8-10,

Z. sp. undet, p. 140 pl. xxi figs. 5–8 Cambrian (Middle) Canada (British Columbia), RASETTI Smithson. Misc. Coll. 116 5 1951.

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Free check indet. pl. xxxiii figs. 20, 21 from Zone C Garden City Formation (Lower Ordovician) Idaho, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Pygidium No. 1 [? Plicatolina kindlei] Cambrian (Upper) U.S.A. (Vermont) p. 114 pl. xxii fig. 18, Shaw J. Paleont. 25 1 1951.

Pygidium No. 2 [? Terranovella gelasinata or Plicatolina kindlei] Cambrain (Upper) U.S.A. (Vermont) p. 114 pl. xxii fig. 19, Shaw J. Paleont, 25 1 1951.

Pygidia genus and species undetermined pl. xxx fig. 10 from Zone A, pl. ix figs. 15, 16, 25, 29, 30 from Zone B, pl. xvii figs. 23, 28, 29, 32, 33, pl. xix figs. 30–38, pl. xxx figs. 4, 5, pl. xxx fig. 4 from Zone F, pl. xix figs. 5–9, 11–20 from Zone E, pl. xxvi fig. 15, pl. xxx figs. 6, 8, 17–19, pl. xxx figs. 11, 15, pl. xxx figs. 12, 13, 16, pl. xxx figs. 20, 21, 24, pl. xxx figs. 23, 26, pl. xxx fig. 27 from Zone G, Garden City Formation (Lower Ordovician) of Idaho, Ross Bull. Peabody Mus. nat. Hist. 6 1951.

Unassigned pygidium B, p. 649 pl. xev fig. 13, Unassigned pygidium L, p. 650 pl. xev fig. 14, Unassigned pygidium P, p. 650 pl. xeiii fig. 20 Cambrian (Upper) U.S.A. (Pennsylvania), J. L. WILSON J. Paleont. 25 5

1951.

IV.—ERRATUM.

In Z.R. 87 Section 11, Titles entry No. 46 Pribyl A., Sborn. Stát. geol. Ust. Ceskoslov. Rep. 17 pp. 173-200 is recorded as having appeared in 1950; this date is given on the Title Page, but [p. iv] of the preamble shows that the date of publication is 1951 thus the new generic names Bohemopyge. Holubaspis and Růžič-kaia date from 1951 not 1950 as stated in Z.R. 87.

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